

Jessie W. Levine
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Town of Bedford, New Hampshire

August 15, 2013

USEPA
5 Post Office Square – Suite 100
Mail Code-OEP06-4
Boston, MA 02109-3912
ATTN: Newton Tedder

Re: Comments on the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

With respect to the proposed 2013 Draft MS4 NPDES Permit issued on February 12, 2013, please accept this letter as the Town of Bedford's supplement to the comments provided under separate cover from the MS4 Coalition of New Hampshire communities. The Town of Bedford is a member of and is in support of the comments contained within the Coalition's letter, and hereby incorporates by reference the Coalition's comments.

Furthermore, it is the Town's firm belief that the proposed regulations contained within the draft MS4 permit will be overly burdensome to this community. The costs required in attempting to comply with the regulations -- both in administration and in implementation of the proposed minimum control measures -- far exceed current town budget. For instance, even though the Town of Bedford has no direct or proximate frontage on Sebbins Pond (one of the many waterbodies for which the Town would be responsible), the TMDLs established by the draft MS4 permit would require the Town to spend a minimum of \$700,000 – close to one year's annual road maintenance budget – in attempting to meet one component of the permit requirements.

In addition to cost concerns, MS4 communities such as the Town of Bedford will be responsible for controlling, regulating and maintaining run off/dischARGE from properties that are not within its direct control, such as but not limited to public school properties over which the Town of Bedford has no budget or administrative authority, as well as no zoning oversight under current New Hampshire state statutes.

Thank you for considering our comments and we look forward to your response.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jessie W. Levine', is written over the printed name.

Jessie W. Levine
Town Manager

Dear Mr. Tedder,

As a long-time member of the Hoosic River Watershed Association, I heartily endorse efforts to control and treat storm water runoff in New Hampshire and Massachusetts.

John

John Case
1739 Green River Road
Williamstown, MA 01267
413-458-8023

**Comments to the US Environmental Protection Agency
from the City of Portsmouth New Hampshire
March 14, 2013**

Thank you for the opportunity to provide comment with regard to the proposed changes, dated February 12, 2013, to the Draft National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in New Hampshire. The City of Portsmouth, New Hampshire with a population of approximately 21,000, consists of approximately 17 square miles and is located on the Piscataqua River. Portsmouth's City storm drain infrastructure consists of approximately 323,000 lineal feet of pipe, 4,700 catch basins or manhole structures and 450 outfalls. This proposed General Permit would be applicable to the City's Separated Storm Sewer system.

The City of Portsmouth agrees with the intent and goal of the Clean Water Act. Clean water is a vital resource and should be protected. **However, the proposed regulations are excessively burdensome and some components will not help achieve clean water.** Several general comments applicable to the overall permit conditions are provided here today with my statement, and subsequent comments more specific to the requirements will be provided in writing, prior to the submission deadline which is currently April 15, 2013.

General Comments:

1. The Permit, as drafted, would create a significant administrative burden for the City that would *detract* from its ability to provide direct benefits to water quality through such activities as increased street sweeping, increased catch basin cleaning, removal of illicit discharges, and/or conducting inspections of construction sites. The City has estimated that approximately 2,800 staff hours would be required to comply with the administrative components of the draft Permit such as tracking and annual reporting. The total estimated cost to comply with this Permit, an additional \$3,500,000 over the five year permit cycle, would constitute an 8 to 12% increase in the City's current Public Works budget. Due to the current national economic climate, the

Portsmouth City Council is not inclined to increase City budgets, therefore other essential programs would need to be reduced or cut to accommodate these expenditures.

2. Given the magnitude, complexity, and cost implications of this permit the City requests an additional month of comment period to fully vet the permit's potential impacts and to be able to present these impacts to the City Council and the public.

Thank you for the opportunity to provide comments to this proposed permit for stormwater discharges from small municipal separate storm sewer systems.

Hello Mr. Newton,

I am writing to comment on the proposed new MS4 permit in New Hampshire. I am executive Director of the Ipswich River Watershed Association in Massachusetts. We also manage the Parker – Ipswich – Essex Rivers Restoration Partnership which is a coalition of the 3 coastal watersheds in the Northeast corner of Massachusetts near New Hampshire. We feel the next phase of stormwater permitting as proposed is DESPERATELY needed and strongly encourage you to adopt the proposal. While we recognize the potential hardship this will place on municipalities, it needs to be understood that stormwater discharges which they manage are already in violation of federal and state water quality regulations and the new regulations are designed to reasonably address the devastating impact of stormwater on our waterways. As you are well aware, stormwater is by far the largest source of water pollution today and the time has (finally) come for society to both recognize and address the issue. Although we are located in Massachusetts, we are impacted by stormwater emanating from New Hampshire as many watersheds cross boundaries. As importantly, we feel what happens with the New Hampshire permit will directly impact the proposed permit for Massachusetts so we really need the New Hampshire Permit to be as strong as possible. In sum, we strongly support adoption of the MS4 permit as proposed and encourage you to resist any efforts to weaken it.

Sincerely,



Wayne Castonguay
Executive Director



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TOWN OF EXETER, NEW HAMPSHIRE

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August 15, 2013

US EPA
5 Post Office Square – Suite 100
Mail Code – OEP06-1
Boston, MA 02109-3912
Attn: Newton Tedder

RE: Comments to the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

The Town of Exeter, NH is located where the fresh water Exeter River meets the tidal Squamscott River which is a primary tributary to the Great Bay. Exeter's rivers and streams play an important role in the community. Exeter River is a source of drinking water for the town. Exeter's many waterways support a wide variety of plant and animal life and recreational opportunities for the community. Achieving good water quality is a goal this community works on a daily basis. Exeter has and continues to work hard to meet the requirements of the 2003 Small MS4 NPDES permit.

On behalf of the Town of Exeter, please accept the following comments on the proposed 2013 Draft MS4 NPDES Permit issued on February 12, 2013.

Exeter has a strong Outreach and Education Program however, the new requirement to assess/evaluate the effectiveness of the messages is daunting. EPA and NHDES have professional outreach employees. We suggest that these professionals provide a list of recommended methods for program evaluation/assessment.

Overall, the IDDE Screening requirements are well done and the use of field kits for sampling is an improvement. It has been difficult to identify sampling equipment which is approved for stormwater sampling. It would be beneficial to New Hampshire communities if EPA or NHDES could provide a list of approved sampling kits and meters for use in our stormwater programs. Additionally, if the EPA or NHDES could establish a contract with an approved supplier then communities could purchase equipment at a reduced cost and be insured they were purchasing the appropriate field kits and sampling equipment.

Section 2.1.1.c establishes the requirement to remedy any conditions causing an exceedance of water quality standards within 60 days of a determination that our discharge is causing an exceedance. The section specifically spells out that the compliance clock begins to accrue immediately and continues until the source is remedied and that there is not a grace period. This coupled with the fact that we have to conduct dry weather sampling of all of our outfalls at the same time will put the Town into almost immediate non-compliance. Finding a high reading of a contaminant, conducting additional

sampling along the drainage system, dye testing of sewer and drain systems, smoke testing of sewer and drain systems and finally finding a potential source, then contacting the source, issuing notice to private source and providing time for the private source to remedy the issue, will take longer than 60 days. Older larger drainage systems could take 6 months or longer to find the illicit discharge.

Holding the Town immediately and legally responsible for the illegal acts of others who have illicit discharges into our system is not required in the storm water regulations. Given the statutory penalties required by the CWA as they compare to the statutory penalties that a NH community can impose on a violator; this creates a very unfavorable position for a local government to be placed in by this permit.

The Town of Exeter will be dealing with the Statewide Bacteria TMDL. Is there a method for the town to conduct water sampling over the course of the permit for possible removal of some streams listed as impaired under the statewide bacteria TMDL and other impaired waterways?

We question including sanitary sewer overflows (SSOs) as part of the Small MS4 permit. The Town already reports SSOs to the State and EPA. Because it is already covered in other regulations, we believe the additional tracking for this program is not necessary.

Will the nitrogen load reduction credits in Attachment 1 of Appendix H align with the phosphorus reduction credits in Attachment 2 of Appendix F, which includes various management measures, including catch basin cleaning, street sweeping, litter control, phosphorus control and fertilizers? EPA should allow the same provision for nitrogen load reduction credits as the phosphorus control measures allows for alternative methods to use for determining load credits.

We question the authority the town has to regulate chloride use and reporting for private properties.

Define the difference between the EPA's stormwater construction program and the MS4's Construction Site Stormwater Runoff Control Program.

Exeter has a low speed narrow parkway surrounded by green space which receives no pesticides or fertilizer. The roadway was built with a series of 2 catch basins with an outfall. If the town were to provide an approved BMP for the catch basins, such as inserts for oil and sediment, with a maintenance plan, could the outfall monitoring be waived? These outfalls will be extremely difficult to access.

Request additional meetings with EPA and NHDES for guidance as this permit moves forward.

Sincerely,

A handwritten signature in dark ink, appearing to read "Russell", followed by a long horizontal flourish.

Russell Dean
Town Manager



**TOWN OF LONDONDERRY
PUBLIC WORKS DEPARTMENT
268B MAMMOTH ROAD
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TEL (603)432-1100 EXT 193
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August 13, 2013

USEPA
5 Post Office Square – Suite 100
Mail Code-OEP06-4
Boston, MA 02109-3912
ATTN: Newton Tedder

RE: Comments to the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

The Town would like to express our appreciation for the granting two extensions to the review period. The extensions gave the Town an additional time to review the proposed language contained in the permit and consider the ramifications of the permit requirements.

Because of the limited staffing, and the complexity of the Permit proposal, the Town of Londonderry joined the Coalition of the local MS-4 communities and jointly prepared comments that will be submitted on the behalf of the Town of Londonderry from Sheehan, Phinney, Bass & Green, PA.

The Town would also like to note that we met with the staff at NHDES who have worked with the MS4 Communities to understand the permit implications and to find the most cost-effective and efficient way to comply with the Clean Water Act requirements. It is our hope that once the comment period closes and EPA begins the task of responding to the comments, that EPA will join our local communities in these inter-governmental implementation discussions.

In addition to the comments from Sheehan, Phinney, Bass & Green, PA the Town offers the following:

Section 1.9.2 dealing with Historic Properties requires documenting all drainage structures within our MS4 system. This potentially opens the Town up to onerous Section 106 reviews for each and every catch basin, detention pond and drainage swale that we need to work on. To avoid lengthy Section 106 reviews the EPA/NHDES could work with the State Historic Preservation Officer (SHPO) to develop a programmatic agreement regarding historic properties and MS4 related activities. This would streamline and enhance historic preservation and project delivery efforts.

Section 2.1.1.c establishes the requirement to remedy any conditions causing an exceedance of water quality standards within 60 days of a determination that our discharge is causing an exceedance. The section specifically spells out that the compliance clock begins to accrue immediately and continues until the source is remedied and that there is no grace period. This, coupled with the fact that we have to conduct dry weather sampling of all of our outfalls at the same time will put the Town into almost immediate non-compliance. We recommend the permit be modified to allow communities to work toward compliance in a realistic and cost effective manner. A significant portion of the water quality data that this permit is being based on is dated, insufficient and the sampling techniques are unknown. To help deter the stringent requirements of the water quality exceedance, the Town is asking for time to evaluate the water quality data that NHDES has used to determine the 303 (d) list. Within the first 3 years of the permit we could focus on data verification. We could then prioritize our outfalls based on the use of the receiving water value (as determined by NHDES) and risk to the public. We can then implement a rigorous sampling program of the high value/high priority water bodies and develop plans to remedy any sources of contaminants specifically from our MS4.

Section 2.1.2 prohibits any new or increased discharges (including pollutant loadings). Does this mean that the Town needs to notify NHDES every time we issue a driveway permit or add a catch basin to our drainage system? Do we also have to provide a waste load analysis for every driveway? This provision seems administratively burdensome and the Town doubts that NHDES has the resources to respond to such a requirement.

Section 2.2.2.a.ii.b.3 states that all planned BMP's shall be fully implemented within three years of the permit effective date. The Town requests the ability to prioritize our outfalls to concentrate on the highest priority outfalls first. We suspect that some of the BMP's will take longer than 5 years to implement.

Section 2.2.2 lays out a schedule requiring completion of all 3 phases of compliance with the permit within the 5 year term of the permit. Town of Londonderry has had a stormwater program for many years and has already achieved water quality improvements through the implementation of structural and non-structural stormwater Best Management Practices. Based on our experience we believe that to implement many requirements of this draft permit in five year period is not realistic. We also believe that EPA recognizes that storm water compliance needs to be a long-term solution.

On Page 27 of 60 under 2.3.4.2.b there is reference to a 30 day time limit to remedy and illicit discharge. This is inconsistent with the 60 day limit mentioned earlier.

This permit represents an increase in administrative and technical effort that would be impossible for any municipality to absorb. It is not necessarily the permit conditions themselves but rather the sheer volume of the impaired water bodies. According to EPA's website; New Hampshire ranks 7th in the nation in the number of impaired water bodies.

Another concern is that mercury, though it is clearly established is the result of air disposition not storm water runoff is still a concern based on the increased requirements to manage sediment removed from the roadways that could have mercury contaminants present.

Beaver Brook is listed with chloride impairment. The goal is to substantially reduce chloride discharges. The majority of chloride discharges are from salt as it is applied to roadways in treatment of icy and snowy conditions. The Town has a primary duty to public safety and has to carefully weigh the salt reduction benefits to the environment with the Town's legal exposure to provide for safe travel.

Also, the Town feels that adequate time is needed to be built into the schedule to allow the legislature to grant the necessary authority to affected communities to regulate chloride use on private properties with approved site plans. The Town believes that compliance with chloride use will be disastrous to NH's business community. Large organizations such as Supermarkets could potentially have to have its contractors comply with various different chloride management ordinances. This would be accomplished much more efficiently at the state level.

The IDDE Screening requires to inventory the system in the first year. It would be beneficial to allow the inventory to be completed within the first 3 years of the permit. This would better coincide with what was requested above for prioritizing water bodies.

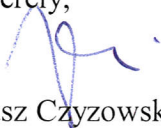
Holding the Town immediately and legally responsible for the illegal acts of others who have illicit discharges into our system is not required in the storm water regulations. Given the statutory penalties required by the CWA as they compare to the statutory penalties that a NH community can impose on a violator; this creates a very unfavorable position for a local government to be placed in by this permit.

This permit deals with watershed based issues. However, the permit, and its compliance responsibilities are being issued to the individual communities despite not controlling the flows from neighboring communities that contribute to water quality impairments. There is also atmospheric deposition which is a national problem. This permit should be restructured to address impairments on a watershed basis with all stakeholders contributing in a fair and equal manner as opposed to individual communities being forced to assume the full implementation and financial responsibility.

Section 2.3.7.d.iii requires sweeping of uncurbed streets. This is not practical as the efficiency of a mechanical sweeper is greatly reduced in the absence of curbing. Uncurbed streets are self-cleaning as most of the roadway discharge is absorbed into the ground below the ditch lines. Of our 180 miles of road in town only few miles are with curb. If the Town is required to sweep all 180 miles of road the approximate cost would exceed \$100,000 per year.

We are requesting that once the comment period has closed the EPA should reach out to all MS4 communities in an effort to work cooperatively to revise the permit to ensure that the local communities receive a more comprehensive permit which preserves the environment and uses limited local resources wisely. It will benefit all parties if the permit is issued for public comment again.

Sincerely,



Janusz Czyzowski, P.E.
Director of Public Works and Engineering
Town of Londonderry, NH

August 15, 2013

Newton Tedder, Physical Scientist
US EPA, Region 1
5 Post Office Square – Suite 100, Mail Code OEP 06-4
Boston, MA 02109-3912

RE: Draft 2013 New Hampshire Small Municipal Separate Storm Sewer System (MS4) General Permit

Dear Mr. Tedder,

Please accept the following comments regarding the draft 2013 New Hampshire Small Municipal Separate Storm Sewer System (MS4) General Permit issued by EPA on February 12, 2013. Of the twenty-six municipalities that makeup the Rockingham Planning Commission's region, twenty-five have some portion of their community within an urbanized area and are subject to the 2013 MS4 General Permit. Eight of these municipalities have received waivers from the permit. The remaining municipalities were all subject to the 2003 MS4 General Permit except for the town of Stratham that has been added as an MS4 community as of the 2013 permit. The draft 2013 MS4 General Permit is a major concern for the municipalities in our region due to limited resources and technical capacity to implement the permit conditions.

We wish to make the following observations, comments and recommendations with respect to the Draft Permit:

Regional and Intermunicipal Cooperation: For many aspects of permit compliance, municipalities will be required to conduct the same or similar tasks, such as public education, system and impervious area mapping, developing improved stormwater regulations and other aspects of a stormwater management program (SWMP). By working together in intermunicipal, regional or watershed associations on these essentially standard tasks, towns can stretch resources and technical capacity and lower their cost of compliance. With the exception of required public education and outreach (Section 2.3.2.1.b) the permit is not structured to either explicitly encourage or permit intermunicipal cooperation and the sharing of resources. The RPC recommends that language be included in the permit specifically allowing and encouraging municipalities to work together to reduce duplicative efforts and make better use of available municipal resources. In addition, we ask that you consider language in the permit that would allow municipalities to develop an intermunicipal and/or watershed based stormwater management programs (SWMPs).

Technical and Financial Assistance: To increase compliance and reduce the financial burden on municipalities, RPC requests that the EPA establish and support, either directly, or through the NHDES, a robust program to provide financial and technical assistance to increase municipalities' capacity to implement the permit. This financial assistance should be structured to support both specific municipal stormwater management program elements, as well as more general technical support including model documents (such as sample public education materials, sample contents of a municipal stormwater management program document (SWMP), a New Hampshire specific Stormwater Pollution Prevention Plan model, inventory and mapping protocols, stormwater management guidelines, etc.), training sessions for mapping and monitoring stormwater systems, and tools for tracking progress on the implementation of a municipal SWMP.

Compliance Timing: Overall, the general timeframe given for implementing the permit appears to be reasonable to allow municipalities to comply with the permit conditions provided sufficient resources are available. However, the timing of the effective date of the final permit will affect municipalities' ability to budget adequately to implement those conditions, and to take other town meeting actions. Due to municipal budget cycles in New Hampshire, having the permit effective date be in spring (after town meetings typically held in March) would allow for municipalities to appropriate necessary funds and take other actions as needed implementing the permit. Also, it would be helpful to clarify for municipalities that water quality impairments, problems and pollution sources are not required to be fully resolved or eliminated by the end of the first permit cycle. However, required mechanisms, practices, enforcement, and plans must be in place.

MS4/Urban Area Designation: Based on practical results seen in our region, we believe the current method for identifying MS4 areas is inadequate and outdated, especially when applied in smaller communities. In such cases the MS4 regulated areas do not correlate well to the areas within those communities that are most likely to generate significant stormwater discharges. MS4 area identification appears to rely too heavily on population density and not enough on the existence of concentrated areas of impervious surface. Locally and regionally the capability exists (through high resolution aerial photography and land cover mapping) to more accurately define and track large areas of impervious surface. The validity of the MS4 program is somewhat undermined in the minds of some local officials because of this poor correlation – where large areas of commercial strip development are outside the MS4 area, yet relatively benign areas of low and moderate density residential development are included. We recognize that the method of designation is not necessarily an issue that can be addressed through the Draft Permit, but it should be of concern to the program. We would urge EPA to consider a more refined method of MS4 area determination – and going forward, include a mechanism or process for municipalities, with adequate rationale, to modify their MS4 boundaries.

Finally, as I am sure you know, many of the municipalities in southeastern New Hampshire are dealing within increasingly stringent wastewater discharge permits due to the nitrogen impairment in the Great Bay Watershed. A much more integrated approach that links the MS4 program, NPDES permits, TMDL, and other water quality management programs is called for in this region – as Administrator Spaulding has himself said. We hope that you will support efforts such as those underway in the Oyster River (Durham) and the Exeter-Squamscott (Exeter/Stratham/Newfields) by supporting flexibility in the underlying permitting. We believe such an approach has the best chance of creating cost-effective solutions that have local support and achieve water quality improvements.

I appreciate the extended opportunity to comment of the Draft Permit. If you should have questions regarding these comments, please feel free to contact me at (603) 778-0885 or via e-mail at csinnott@rpc-nh.org.

Sincerely,



Cliff Sinnott,
RPC Executive Director

cc: Boards of Selectmen, RPC MS4 Communities
RPC Commissioners
Alison Watts, Southeast Watershed Alliance
Commissioner Tom Burack, NHDES

Thursday, August 15, 2013

Newton Tedder
US EPA—Region 1,
5 Post Office Square, Suite 100,
Mail Code—OEP06-4,
Boston, MA 02109-3912
Tedder.Newton@epa.gov.

RE: Comments on the 2013 Draft General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems- New Hampshire

I am writing to express my support of the 2013 Draft General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems in New Hampshire. The changes in the new permit are necessary, and include many important improvements, and some important limitations.

Perhaps the greatest limitation is the need to require the usage and application of Low Impact Development (LID) stormwater management as the expression of the Maximum Extent Practicable (MEP). The need for LID as MEP is reasonable and well documented¹. The usage of the practicality of LID as MEP is exemplified by its successful application in both state² and municipal applications throughout the New Hampshire³ and the US^{4,5}. LID stormwater management is evolving and becoming increasingly affordable, increasingly familiar with the design community, and increasingly manageable from a maintenance perspective. It is also important to note that with the raising of the standards for MEP, that certain practices should be disallowed for usage. Practices that have been demonstrated to be contributing to the water quality failures should be eliminated where feasible. An example is the removal of the use of retention ponds and hydrodynamic separators in the 2010 Rhode Island Stormwater Manual⁶.

Arguments against the usage of LID as MEP are typically due to a lack of familiarity with the practices and inflated cost estimates taken out of context of typical municipal activities. The majority of problems associated with LID stormwater management are less to do with the technology, and more to do with poor design, installation, and maintenance. A careful permit that requires qualified personnel during the design and installation process will prevent widespread problems.

Another major concern due to a lack of familiarity is the misconception the draft MS4 permit requirements are to be implemented over a single permit cycle. The permit needs to be more explicit in

¹ NRC. (2008). "Urban Stormwater Management in the United States." National Research Council, Washington DC.

² Rhode Island General Assembly (RIGA). (2007). "Smart Development for a Cleaner Bay." HB6143.

³ Durham, Town. (2010). "Site Plan Review Regulations of Durham, New Hampshire."

Durham, Town. (2010). "Subdivision Review Regulations of Durham, New Hampshire."

⁴ NYC. (2010). "NYC Green Infrastructure Plan." Office of the Mayor, New York, New York City, New York.

⁵ Philadelphia Water Department. (2012). "Green City Clean Waters Program."

⁶ RIDEM, CRMC, West, M., Claytor, R., Roseen, R., and Esten, M. E. (2010). "Rhode Island Stormwater Design and Installation Standards Manual." Rhode Island Department of Environmental Management and the Coastal Resources Management Council.

the allowance of multiple permit cycle to achieve long term improvements, and thus a distribution of cost over a period of 15 to 25 years.

LID stormwater management works effectively throughout multiple seasons including challenging winter conditions. Data shows that it works better for water quality than conventional stormwater management, and that in the winter standard practices suffer dramatically⁷.

LID stormwater management is reasonable to construct and maintain. Existing municipal staff can be effectively trained to build and maintain these practices⁸. Maintenance requirements should not be substantially different than current Good Housekeeping Practices requiring regular inspection and maintenance of stormwater infrastructure. Furthermore, study of maintenance costs have shown that LID storm water management and actually be less expensive to operate and maintain than traditional conventional storm water management⁹. Similar studies comparing costs of landscaping of traditional turf and landscape features would likely show similar results.

Cost concerns about LID stormwater management need to be balanced. Effective stormwater management will never be cost competitive with no stormwater management. However it can be cost competitive with common stormwater management using catch basins, curbing, pipe, and ponds. Two cost studies published in 2011 demonstrated a 6% and 26% savings in stormwater management infrastructure for a residential and commercial LID application¹⁰. These projects had significant cost savings through the elimination of pipe, curb, retention ponds, clearing, and hydraulic control structures despite the usage of LID measures including porous asphalt, infiltration, and gravel wetlands.

Another significant element of the draft permit is the linkage to impaired waters and the TMDL program. Water quality improvements will not occur unless permits are grounded in the application of TMDLs. Arguably, a municipality could be in compliance with the first round of MS4 permits conditions, and still show no measurable improvements in water quality. For this reason, some type of wet weather monitoring should be required. There needs to be data demonstrating impacts and results from the MS4 activities. Water quality data needs to play an important role in the verification of permit efforts. A strong example for why this is needed is the Chesapeake Bay. While many important substantive challenges exist for the management of the Chesapeake Bay, some very poor guidance was given for years detailing improperly the success of nutrient control measures. The success was gauged on modeling results, and not based on water quality monitoring, which showed the opposite. Successful permit implementation must be based on water quality monitoring results.

⁷ Roseen, R. M., Ballesterio, T. P., Houle, J. J., Avellaneda, P., Briggs, J. F., Fowler, G., and Wildey, R. (2009). "Seasonal Performance Variations for Stormwater Management Systems in Cold Climate Conditions." *Journal of Environmental Engineering-ASCE*, 135(3), 128-137.

⁸ Cochemo River Watershed Coalition (CRWC), Chase, L., and Roseen, R. (2009). "Introducing LID in the Willow Brook Watershed." Funding Source: NHDES Watershed Assistance Grants, Rochester, NH.

⁹ Houle, J. J., Roseen, R. M., Ballesterio, T. P., Puls, T., and Sherrard, J. (2013). "A Comparison of Maintenance Cost, Labor Demands, and System Performance for LID and Conventional Stormwater Management." *Journal of Environmental Engineering*(139), 932-938.

¹⁰ Roseen, R. M., Janeski, T. V., Simpson, M., Houle, J. J., Gunderson, J., and Ballesterio, T. P. "Economic and Adaptation Benefits of Low Impact Development." 2011 Low Impact Development Symposium.

A substantial limitation to the Draft MS4 Permit is the lack of adequate funding mechanisms. Given the current economic conditions that challenge municipal budgets, the MS4 permit should include some additional funding mechanisms. The State of Maryland ¹¹ has legislation to require formation of stormwater utilities created by the state, and managed by towns. Other states are considering similar legislation. This is needed because municipalities lack the political will to pass utilities, without which no reasonable implementation of MS4 permit requirements will be implemented. The MS4 permit should require, as it does for the creation of municipal stormwater ordinance, the creation of municipal stormwater utility developed solely to support permit activities. This blanket approach is needed to facilitate and improve the rate of adoption of utilities. There are a limited number in the northeast, the state of NH has none, with the City of Manchester having one in process for nearly 7 years and counting.

Another limitation is the size of disturbance to trigger the post construction stormwater controls is too large. Many projects with the significant impacts are smaller than 1 acre. The cumulative impact of small sites is tremendous. In many urban and suburban areas, very few lots will exceed 1 acre but will represent the major form of development.

The permit needs to encourage more widely the usage of porous pavements. There is a misconception that porous pavements present a unique risk to groundwater contamination. The risk to groundwater exists for all infiltration and filtration practices and the measures and means by which this threat is controlled should be similar. Systems can be limited or lined. Porous pavements represent substantial potential benefits hydrologically. No other LID practices can have such profound hydrologic impacts. Porous pavements can commonly recharge more rainfall than in a predevelopment condition. The same limitations do not exist for soil types as do for typical infiltration systems. Data shows that porous pavements on Hydrologic Group C soils can have as much as 25% recharge¹² and annual volume reduction and type B soils can have as much as 92% annual volume reduction¹³. Porous pavements can be built to be durable, and have tremendous water quality and quantity benefits.¹⁴ Improvements to design specifications are routine and the standard of practice is advancing rapidly¹⁵. Additionally, porous pavements have also been shown to provide substantial salt reduction potential. As much as 50-75% salt reduction has been observed in some instances with the use of porous asphalt.¹⁶

¹¹ Raskin, Frosh, Harrington, Lenett, Madaleno, Pinsky, Pugh, Rosapepe (2010). "SB 686: Watershed Protection and Restoration Act." State of Maryland.

¹² Briggs, J. (2006). "Performance Assessment of Porous Asphalt For Stormwater Treatment," MS Thesis, University of New Hampshire, Durham.

¹³ UNHSC, Houle, J., Roseen, R., and Ballestero, T. (2010). "UNH Stormwater Center 2009 Annual Report." University of New Hampshire, Cooperative Institute for Coastal and Estuarine Environmental Technology, Durham, NH.

¹⁴ Roseen, R. M., Ballestero, T. P., Houle, J. J., Briggs, J. F., and Houle, J. P. (2010-Accepted). "Water Quality and Hydrologic Performance of a Porous Asphalt Pavement as a Stormwater Treatment Strategy in a Cold Climate." ASCE Journal of Environmental Engineering, 8.

¹⁵ UNHSC, Roseen, R. M., Ballestero, T. P., Briggs, J. F., and Pochily, J. (2009). "UNHSC Design Specifications for Porous Asphalt Pavement and Infiltration Beds." University of New Hampshire Stormwater Center, Durham, NH.

¹⁶ Roseen, R. M., Ballestero, T. P., Houle, K. M., Heath, D., and Houle, J. J. (2013-Accepted). "Assessment of Winter Maintenance of Porous Asphalt and Its Function for Chloride Source Control." Journal of Transportation Engineering.

Thank you for your consideration of my comments.

Regards,

A handwritten signature in black ink, appearing to read "Robert Roseen". The signature is fluid and cursive, with a long horizontal stroke at the end.

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Received w/ 2 cos 8/13/2013

August 12, 2013

Mr. Newton Tedder
U.S. EPA, Region I
5 Post Office Square
Suite 100, Mail Code OEP 06-4
Boston, MA 02109-3912

Re: 2013 New Hampshire Small MS4 Draft General Permit

Dear Mr. Tedder:

Conservation Law Foundation (CLF) appreciates the opportunity to comment on the above-referenced draft general permit, pertaining to small municipal separate storm sewer systems (MS4s) in New Hampshire. CLF is a member-supported environmental advocacy organization that works to solve the problems threatening our natural resources and communities in New Hampshire and throughout New England. CLF has worked, and continues to work, to protect the health of our waterways and, in doing so, to promote effective regulations and strategies to reduce and minimize the significant impacts of stormwater pollution. CLF submitted comments on the prior iteration of this draft permit by letters dated February 20, 2009 and July 27, 2010.

I. General Comments

Stormwater runoff from impervious areas has significant negative impacts on water quality throughout this region and nationwide. As the EPA Office of Water has found, "Stormwater runoff in urban and developing areas is one of the leading sources of water pollution in the United States."¹ The National Research Council (NRC) agrees: "Stormwater runoff has a deleterious impact on nearly all of the nation's waters"² – as does the Ninth Circuit Court of Appeals: "Stormwater runoff is one of the most significant sources of water pollution in the nation."³

In its preamble to the Phase II stormwater regulations in 1999, EPA explained the impacts of stormwater runoff in detail:

¹ U.S. Environmental Protection Agency, Office of Water, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*, Forward by Peter S. Silva, Assistant Administrator (Dec. 2009), available at http://www.epa.gov/oaintrnt/documents/epa_swm_guidance.pdf.

² National Research Council, Committee on Reducing Stormwater Discharge Contributions to Water Pollution, *Urban Stormwater Management in the United States* at 25 (2008), available at http://www.nap.edu/catalog.php?record_id=12465.

³ *Environmental Defense Center v. EPA*, 344 F.3d 832, 840 (9th Cir. 2003).

Storm water runoff from lands modified by human activities can harm surface water resources and, in turn, cause or contribute to an exceedance of water quality standards by changing natural hydrologic patterns, accelerating stream flows, destroying aquatic habitat, and elevating pollutant concentrations and loadings. Such runoff may contain or mobilize high levels of contaminants, such as sediment, suspended solids, nutrients (phosphorous and nitrogen), heavy metals and other toxic pollutants, pathogens, toxins, oxygen-demanding substances (organic material), and floatables. ... Individually and combined, these pollutants impair water quality, threatening designated beneficial uses and causing habitat alteration or destruction.⁴

These water quality impairments “result[] in an unhealthy environment for aquatic organisms, wildlife, and humans.”⁵

EPA has recognized that stormwater runoff is a “contributor to water quality impairments across the country, particularly in developing and urbanized areas.”⁶ Stormwater has these effects in large part due to the harmful contaminants that it carries into receiving waters. According to the NRC, “The chemical effects of stormwater runoff are pervasive and severe throughout the nation’s urban waterways, and they can extend far downstream of the urban source. ... A variety of studies have shown that stormwater runoff is a vector of pathogens with potential human health implications.”⁷

In particular, over 250 studies have shown that increases in impervious area associated with urban development are a “collection site for pollutants,”⁸ and generate greater quantities (and additional types) of contaminants. Urban development creates new pollution sources as population density increases and brings with it “proportionately higher levels of car emissions, maintenance wastes, pet waste, litter, pesticides, and household hazardous wastes, which may be washed into receiving waters by storm water.”⁹ These increases in pollutant loadings can result in immediate and long-term effects on the health of the water body and the organisms that live in it.¹⁰ The U.S. Geological Survey has found that, in areas of increased urban development, local rivers and streams exhibited increased concentrations of contaminants such as nitrogen, chloride, insecticides, and polycyclic aromatic hydrocarbons (PAHs).¹¹

The increased stormwater volume and pollutant loadings caused by urbanization, especially impervious cover, are closely connected with water body impairment. Contaminants, habitat

⁴ National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, 64 Fed. Reg. 68,722, 68,724 (Dec. 8, 1999) (citation omitted).

⁵ *Id.*

⁶ U.S. Environmental Protection Agency, *TMDLs to Stormwater Permits Handbook*, Office of Water cover letter (2008), available at http://www.epa.gov/owow/tmdl/pdf/tmdl-sw_permits11172008.pdf.

⁷ National Research Council, *supra* note 3, at 26.

⁸ EPA, Office of Water, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*, *supra* note 2, at 5.

⁹ 64 Fed. Reg. at 68,725.

¹⁰ U.S. Geological Survey, *Effects of Urban Development on Stream Ecosystems in Nine Metropolitan Study Areas Across the United States* at 20 (2012), available at <http://pubs.usgs.gov/circ/1373/>.

¹¹ *Id.* at 3.

destruction, and increasing streamflow flashiness resulting from urban development have been associated with the disruption of biological communities.¹² The NRC states, “By almost any currently applied metric...the net result of human alteration of the landscape to date has resulted in a degradation of the conditions in downstream watercourses.”¹³

The deleterious effects of urbanization on water quality are evident from a review of the lists of impaired waters states must compile in compliance with the Clean Water Act. Thousands of water bodies nationwide are currently listed as impaired for stormwater-source pollutants such as pathogens, nutrients, sediments, and metals.¹⁴ Of those impaired water bodies, by 2000, impairments from stormwater runoff were “responsible for about 38,114 miles of impaired rivers and streams, 948,420 acres of impaired lakes, 2,742 square miles of impaired bays and estuaries, and 79,582 acres of impaired wetlands” – and the NRC considers these figures to be underestimates of actual impairments.¹⁵ Urban stormwater is listed as the “primary” source of impairment for 13 percent of all rivers, 18 percent of all lakes, and 32 percent of all estuaries, despite the fact that urban areas cover just 3 percent of U.S. land mass.¹⁶

In New England, according to Region 1, “[s]tormwater runoff from impervious areas contributes to poor surface water quality, including altered flow regime (shoreline erosion and stream channel alteration), the presence of pollutants, and the destruction of healthy populations of fish and other aquatic life.”¹⁷ Because of this, “[t]oday, polluted stormwater runoff is a major cause of water quality impairment in New England.”¹⁸ In New Hampshire, stormwater has been identified as contributing to over 80 percent of surface water quality impairments in the state.¹⁹ Proper implementation of the Phase II stormwater regulations, including those addressing Small MS4s, is essential to protecting valuable surface water resources in New Hampshire from the proven adverse impacts of stormwater. This is especially the case in light of the growing body of evidence of stormwater pollution in the state, including but not limited to, significant chlorides impairments in southern New Hampshire, and major eelgrass- and nitrogen-related impairments in numerous water bodies that are part of the Great Bay estuary.

Generally speaking, the draft permit represents an important and much-needed improvement over both the 2003 Small MS4 General Permit applicable to New Hampshire (“2003 permit”) and the prior iteration of this draft permit. CLF agrees with EPA’s assessment that, with respect to the small MS4 permit program, “the bar needs to be raised for the objectives of the Clean Water Act to be addressed,” and that the permit must be more stringent and prescriptive for the

¹² *Id.* at 1.

¹³ National Research Council, *supra* note 3, at 17.

¹⁴ EPA, *TMDLs to Stormwater Permits Handbook*, *supra* note 7, at Cover Letter.

¹⁵ National Research Council, *supra* note 3, at 25.

¹⁶ *Id.*

¹⁷ EPA Region 1, “Stormwater,” <http://www.epa.gov/region1/topics/water/stormwater.html>.

¹⁸ EPA Region 1, *Restoring Impaired Waters: Total Maximum Daily Loads (TMDLs) and Municipal Stormwater Programs* at 1 (Apr. 2009), available at <http://www.epa.gov/region1/npdes/stormwater/assets/pdfs/RestoringImpairedWaters.pdf>.

¹⁹ New Hampshire Department of Environmental Services, *Environmental Fact Sheet: Low Impact Development and Stormwater Management 1* (2010), available at <http://des.nh.gov/organization/commissioner/pip/factsheets/wmb/documents/wmb-17.pdf>.

program to achieve its statutory purpose. *See* Fact Sheet at 148.²⁰ Generally speaking, and without in any way waiving specific concerns expressed *infra*, we support the draft permit's more prescriptive requirements for ensuring that discharges from small MS4s do not cause or contribute to the violation of water quality standards. *See* Draft Permit §§ 2.1, 2.2.

II. The Draft Permit Should Be Amended to Include Performance Standards Reflecting Low Impact Development ("LID") and Green Infrastructure as a Mandatory Requirement of Meeting the "Maximum Extent Practicable" Standard

CLF strongly urges the inclusion of permit performance standards that reflect Low Impact Development ("LID") or "green infrastructure" stormwater management practices as a mandatory requirement of satisfying the "maximum extent practicable," or "MEP," standard. As CLF explained in its March 31, 2010 comments on the Draft General Permit for Small MS4s for Massachusetts North Coastal Watersheds, and in its July 2010 supplemental comments on the Draft New Hampshire Small MS4 permit, LID/green infrastructure practices "are widely available, well proven, are generally more effective than conventional infrastructure at pollutant removal and volume reduction, and confer additional benefits to the community and the environment." *See* Correspondence from Cynthia E. Liebman, Staff Attorney, Conservation Law Foundation, to Thelma Murphy, Office of Ecosystem Protection, U.S. EPA Region 1 (March 31, 2010) (hereinafter "CLF 2010 Comments"), provided herewith as Attachment 1. Attachments A, B, C, and D1-73 to CLF's 2010 Comments²¹ explain in great detail that these practices represent "the current expression of controlling polluted stormwater runoff to the 'maximum extent practicable' ('MEP')." *Id.* As CLF explained:

From the outset, EPA has made clear the expectations that technologies would evolve, and that the Maximum Extent Practicable standard in the second round of small MS4 permits would reflect what was learned about the effectiveness of the BMP implemented during the first round. The need to meet water quality standards was to drive the evolution of the MEP standard, itself, because the ultimate objective of all BMPs is to ensure the attainment of water quality standards. As EPA expressed in the MS4 Final Rule:

[The Maximum Extent Practicable standard] should continually adapt to current conditions and BMP effectiveness and should

²⁰ EPA describes the shortcomings of the small MS4 program to date, as follows:

... EPA has found that the extremely flexible approach embodied in the MS4-2003 had a number of negative consequences. For example, it proved extremely difficult to assess progress in implementing the minimum measures and improving stormwater management practices based on the annual reports, examination of SWMPs and even site visits. EPA is also aware that compliance with the MS4-2003 was not consistently adequate, and that the flexibility inherent in the MS4-2003 was in some cases interpreted in a manner that did not result in improvements in municipal practices or benefits to water quality. The reissued permit is specifically intended to set higher standards and increase EPA's ability to track activities under the SWMPs, consistent with the national approach as stormwater permits are reissued. . . .

Fact Sheet at 143. CLF agrees with this general assessment of the program's shortcomings to date, and that the more prescriptive approach set forth in the draft permit is greatly warranted.

²¹ Attachments A, B, C and D1-73 of CLF's 2010 Comments are provided herewith, on an enclosed disc.

strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards. If, after implementing the six minimum control measures there is still water quality impairment associated with discharges from the MS4, after successive permit terms the permittee will need to expand or better tailor its BMPs within the scope of the six minimum control measures for each subsequent permit.

64 Fed. Reg. 68722, 68754 (Dec. 8, 1999) (EPA Stormwater Phase II Final Rule).

EPA anticipated that “the NPDES permitting authority may ask the permittee to revise their mix of BMPs, for example, to better reflect the MEP pollution reduction requirement.” 64 Fed. Reg. 68722, 68754 (Dec. 8, 1999) (EPA Stormwater Phase II Final Rule). **At this juncture, ten years after the Small MS4 program was first enacted, and given the wealth of data generated in the interim, it would be inappropriate for EPA Region 1 *not* to include LID-based performance standards and revise the scope of required BMPs to reflect LID/green infrastructure.**

Comments by Dr. Robert Roseen, Director of the University of New Hampshire Stormwater Center on the draft permit²² . . . and Dr. Stephanie Hurley’s Statement on Low-Impact Development²³ . . . confirm that Low-Impact Development and green infrastructure is well tested, effective at stormwater volume reduction and pollutant removal, suitable for New England, and confers ancillary benefits.

Dr. Roseen’s professional opinion is that “LID stormwater management works effectively throughout multiple seasons including challenging winter conditions. Data shows that it works better for water quality than conventional stormwater management.”²⁴ He also confirms that studies have shown LID to be cost effective and in some cases to result in cost savings.²⁵ Furthermore, Dr. Roseen cautions that “with the raising of the standards for MEP . . . certain practices should be *disallowed* for usage. Practices that have been demonstrated to be contributing to the water quality failures should be eliminated . . .”²⁶

Dr. Hurley’s professional opinion regarding LID is that it “offers a more ecological, flexible, and context-sensitive stormwater management approach—and more readily meets water quality and hydrologic performance standards—than conventional stormwater management.”²⁷ Furthermore, Dr. Hurley has

²² Dr. Roseen’s comments are provided herewith as Attachment A to CLF’s 2010 Comments. It should be noted that Dr. Roseen is no longer with the UNH Stormwater Center.

²³ Dr. Hurley’s Statement on Low-Impact Development is provided herewith as Attachment B to CLF’s 2010 Comments.

²⁴ Attachment A to CLF’s 2010 Comments at 1.

²⁵ *Id.* at 2.

²⁶ *Id.* at 1 (emphasis added).

²⁷ Attachment B to CLF’s 2010 Comments at 2.

personally evaluated LID implementation sites at various locations throughout the U.S. and internationally, and confirms that “the principles of LID design can be successfully applied in various topographies, geographies, and climates” including New England, and at a variety of scales.²⁸ Her conclusion is that LID represents the maximum extent practicable for stormwater treatment.²⁹

The direct testimony of Richard Horner, before the Pollution Control Hearings Board for the State of Washington in the matter of the Seattle Phase I stormwater permit (Attachment D3), affirmed that LID techniques are “unquestionably ‘known’ and ‘available’ techniques. In many cases, implementation of LID for new or redevelopment is less costly than conventional BMPs, and offers other economic benefits such as improved property values or reduced water use.”³⁰ Dr. Horner further asserted that the Seattle Phase I permit at issue did not “use all known available and reasonable methods” to control stormwater from new and redevelopment, and it was “highly unlikely” that compliance with water quality standards could be achieved using conventional techniques.³¹ Further, he asserted that “LID approaches are far more protective of water quality than the conventional BMPs” and that the permit did not reflect the maximum extent practicable standard.³²

The direct testimony of Dr. Derek Booth in the same matter asserted that “the [Seattle Phase I] Permit . . . does not protect rivers and streams, beneficial uses, or aquatic life. Continued reliance on such a [flow-based] standard for new development in western Washington will not prevent serious and significant additional degradation to these resources,” and in his professional opinion, “a more protective performance standard that more closely matches natural hydrology . . . is readily achievable without sacrificing opportunities for future development. Achieving a more protective standard would rely on site- and basin-level LID BMPs that are in my opinion, sufficiently well known, understood, available and economically and technologically feasible that they can be implemented throughout western Washington.”³³

Thomas Holz, an experienced civil engineer, testified that

LID approaches are generally more effective at protecting water quality and beneficial uses than the engineered, end-of-pipe standards embraced in the 2005 [Washington] Manual and Permit. They are known, available, and reasonable (as well as “practicable”) in virtually all new and redevelopment situations.

²⁸ *Id.* at 2-3.

²⁹ *Id.* at 3.

³⁰ Attachment D3 to CLF 2010 Comments at ¶27.

³¹ *Id.*

³² *Id.*

³³ Attachment D2 to CLF 2010 Comments at ¶ 33.

(Attachment D1, [of CLF's 2010 Comments] at ¶ 33.)

In addition, a wealth of technical articles, case studies, litigation documents, and federal government guidance documents and fact sheets summarized in Attachment C and included as Attachments D4 – [73] all demonstrate these principles.

CLF 2010 Comments, provided as Attachment 1, at 11-13 (emphasis in original). In addition to the above, it is important to note that the N.H. Department of Environmental Services has itself acknowledged the limitations associated with conventional stormwater management practices, stating in its 2008 Water Resources Primer:

Data from national studies and from the UNH Stormwater Center have shown that conventional approaches to stormwater management (detention basins, treatment swales) do not meet DES's current performance standard of 80 percent removal of total suspended solids (the most commonly used benchmark for such structures) and that **they do not provide a viable means of meeting future water quality objectives. . . .**

NHDES, NEW HAMPSHIRE WATER RESOURCES PRIMER, R-WD-08-23 (Dec. 2008) at 10-5 (available at <http://des.nh.gov/organization/divisions/water/dwgb/wrpp/primer.htm>). Additional and more recent resources provided herewith reinforce the value, effectiveness, and importance of implementing LID. See Attachments 2, 2A – 2O (provided on disc). Consistent with the well established body of evidence that LID is practicable and a critically important tool for controlling stormwater pollution to the maximum extent, the State of Washington's Pollution Control Hearings Board invalidated that state's 2007 Phase I Municipal Stormwater Permit for its failure to require LID and remanded the permit for amendments establishing LID requirements.³⁴

³⁴ In invalidating the state's permit for its failure to require LID, the Pollution Control Board stated, in pertinent part, as follows:

The testimony presented by [the Puget Sound Alliance], the Utilities, and [the Department of] Ecology's technical experts leads to the indisputable conclusion that application of LID techniques, at the parcel and subdivision level, is a currently known and existing methodology that is reasonable both technologically and economically to control discharges entering into MS4s covered by the Phase I Permit. The great weight of testimony before the Board, from various experts and Ecology witnesses was that in order to reduce pollution in urban stormwater to the maximum extent practicable, and to apply AKART, it is necessary to aggressively employ LID practices *in combination* with conventional stormwater management methods. Thus, we conclude under state law, the permit must require greater application of LID techniques, where feasible, in combination with the flow control standard, to meet the AKART standard. The permit must also require the application of LID, where feasible, and conventional engineered stormwater management techniques to remove pollutants from stormwater to the maximum extent practicable in order to comply with federal law. Our recognition that use of LID is to be employed where feasible recognizes that, like all stormwater management tools, it too is subject to limitations in its practical application by site or other constraints. See Findings of Fact 49-51. We do not change the applicable legal standard by use of this term. Accordingly, the permit must be remanded for modification in light of this conclusion.

Puget Soundkeeper Alliance et al. v. State of Washington, Dept. of Ecology et al., 2008 WL 5510413 at 26 (2008). With respect to modification of the permit on remand, the Pollution Control Board ordered, in pertinent part, as follows:

With respect to the use of LID, . . . [the Department of] Ecology shall also modify the permit consistent with this opinion as follows:

a. Modify Permit Condition S5.C.5.b to read as follows:

In its Fact Sheet for the instant draft permit, EPA itself acknowledges that it “has interpreted the MEP requirement as representing an iterative approach that requires that standards be raised each permit term so that progress will be made toward the attainment of water quality standards and towards the goals of the Clean Water Act established by Congress.” Fact Sheet at 144. It further describes the superiority and value of LID, as compared to conventional stormwater management approaches, as well as the feasibility of implementing LID, stating in its Fact Sheet:

EPA recognizes that many municipalities are more comfortable with traditional stormwater management practices such as curbs and gutters, pipes and detention basins, than they are with LID practices that mimic natural hydrology and treat stormwater as a resource. While traditional stormwater management has the virtue of familiarity, it has unfortunately become apparent that the traditional approach has resulted in significant damage to water quality that is difficult and costly to remedy. Under the traditional approach, the effects of development and urbanization on water resources are well known and include degraded habitat, incised channels, impaired aquatic life, high pollutant loads, depleted and contaminated groundwater, and higher incidence of flooding, among others. See EPA, *Incorporating Low Impact Development into Municipal Stormwater Programs*, 901-F-09-005 (April 2009). LID represents a paradigm shift in approach to reduce runoff and to mimic a site’s predevelopment hydrology by infiltrating filtering, storing, evaporating, capturing for reuse, and detaining stormwater runoff that EPA considers crucial for protecting water quality moving forward.

EPA disagrees with the comment that LID features will not function in cold climates. Research performed by the UNH Stormwater Center has produced encouraging results on the effectiveness of LID practices in winter conditions. As stated in the UNHSC 2009 Biannual Report:

LID Weathers the Cold: As a long-term field research program based in New England, UNHSC is uniquely suited to monitoring stormwater treatment system performance over a wide range of seasonal conditions. With four years of data complete, UNHSC research demonstrates that Low Impact Development (LID) stormwater treatment systems function well in the harsh winters of cold climate regions. This finding contradicts widely held perceptions that LID systems do not perform as well as more conventional systems in winter conditions. In fact,

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- iii. The program must (i) **require** non-structural preventive actions and source reduction approaches to (i), **including** Low Impact Development (LID), to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation **where feasible**.
 - b. Require permittees to identify barriers to implementation of LID and, in each annual report, identify actions taken to remove barriers identified.
 - c. Require permittees to adopt enforceable ordinances that require use of LID techniques where feasible in conjunction with conventional stormwater management methods.

Id. at 32-33 (emphases in original).

UNHSC researchers have observed that conventional systems, such as swales, actually perform less effectively in winter months.

Fact Sheet at 102.

Despite all of the foregoing, the draft permit nonetheless adopts a flexible approach to the MEP standard that fails to require the use of LID and green infrastructure. As stated in its Fact Sheet, “EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting.” Fact Sheet at 72. While CLF agrees that permittees should be provided some level of flexibility in assessing which particular stormwater management measures are appropriate and most effective in specific locational contexts, taking into account site- and water-specific factors, we disagree with a “maximum flexibility” approach that does not require the implementation of LID and green infrastructure.

Based on all of the above, including EPA’s own acknowledgment of iterative enhancements of the MEP standard and the fact that LID and green infrastructure approaches are both practicable, and represent the on-the-ground management approaches that control pollutants to the maximum extent, CLF strongly urges EPA to amend the New Hampshire draft permit to require permittees to utilize performance standards for LID/green infrastructure for purposes of satisfying the permit’s MEP standard. Absent such requirements, the permit will not fulfill or comply with the Clean Water Act’s water quality objectives.

III. The Draft Permit Should Be Amended to Include Performance Standards Reflecting Low-Impact Development (“LID”) and Green Infrastructure as a Mandatory Requirement of Ensuring that Discharges Do Not Cause or Contribute to the Violation of Water Quality Standards

Parts 2.1 and 2.2 of the draft permit contain numerous requirements for purposes of ensuring that regulated MS4 discharges do not cause or contribute to the violation of water quality standards. *See* Draft Permit, Part 2.1 (pertaining to water quality based effluent limitations, including the requirement to meet water quality standards); Part 2.2 (pertaining to discharges to impaired waters). In light of all the information set forth in Part II of these comments, which CLF hereby incorporates within this Part III as if fully set forth herein, EPA should amend the draft permit to require the use of LID and green infrastructure as part of permittees’ strategies and actions to ensure that discharges from their MS4s do not cause or contribute to the violation of water quality standards. Indeed, absent such a requirement, the permit will perpetuate discharges that cause or contribute to water quality violations, in violation of the Clean Water Act.

IV. The Draft Permit Should Be Amended to Require – Prior to Authorization for Coverage – EPA Review and Approval of, and Public Participation Regarding, Stormwater Management Programs

The draft permit contains provisions regarding Notices of Intent (“NOIs”) for coverage. *See* Draft Permit, Parts 1.7.2 – 1.7.4. Among those provisions, the draft permit requires EPA to “provide a public notice and opportunity for comment on the contents of the submitted NOIs.” *Id.* Part 1.7.4(a). It further states:

Based on a review of an NOI, public comments received, or other information, EPA may grant authorization, extend the public comment period, or deny authorization under this permit and require submission of an application for an individual or alternative NPDES permit A small MS4 will be authorized to discharge under the terms and conditions of this permit upon written receipt of notice of authorization from EPA.

Id. Part 1.7.4(b).

In its comments on the prior iteration of this draft permit, CLF raised significant concerns about the inadequacy of information provided by NOIs for purposes of enabling EPA to engage in a meaningful, substantive review of permittees’ plans and to grant authorization under the permit. As stated in CLF’s prior comments:

In *Environmental Defense Center v. Browner* (“EDC”), the U.S. Court of Appeals for the Ninth Circuit addressed the type of review required for Notices of Intent (“NOIs”) submitted by small MS4s seeking coverage under a general permit.³⁵ Certain petitioners in *EDC* challenged the EPA’s small MS4 regulations on the ground that they failed to require EPA to review the substance of NOI submissions to ensure compliance with the Clean Water Act. In addressing this critical issue, the *EDC* Court started with the proposition that the Clean Water Act imposes certain substantive requirements that must, consistent with the clear intent of Congress, be satisfied by small MS4s seeking coverage under a general permit. Specifically, the Court found “the plain language of § 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), expresses unambiguously Congress’s intent that EPA issue no permits to discharge from municipal storm sewers unless those permits ‘require controls to reduce the discharge of pollutants to the maximum extent practicable.’”³⁶ The *EDC* Court concluded that EPA must review the substance of NOIs to ensure compliance.³⁷

³⁵ *Environmental Defense Center v. Browner*, 344 F.3d 832 (9th Cir. 2003), *cert. denied*, 124 S.Ct. 2811 (2004).

³⁶ *EDC*, 344 F.3d at 854. Of course, in addition to the “maximum extent practicable” requirement, the Clean Water Act and its regulations contain other important mandates, including the requirements (1) that discharges not cause or contribute to water quality violations, and (2) that the Phase II stormwater regulations (of which the Small-MS4 regulations are a part) constitute a comprehensive program designed “to protect water quality.” *EDC*, 344 F.3d at 844 (*citing* 33 U.S.C. § 1342(p)(6)).

³⁷ The *EDC* court stated:

According to the Phase II Rule, the operator of a small MS4 has complied with the requirement of reducing discharges to the “maximum extent practicable” when it implements its stormwater management program, *i.e.*, when it implements its Minimum Measures. . . . Nothing in the Phase II regulations requires that NPDES permitting authorities review these Minimum Measures to ensure that the measures that any given

As a result of the *EDC* decision (which the U.S. Supreme Court declined to review on *certiorari*), EPA must substantively review NOIs to ensure compliance with the Clean Water Act and applicable standards. Because NOIs include substantive elements of permit applicants' SWMPs . . . , EPA must engage in a substantive review and approval of these SWMP elements – and, by logical implication, the SWMP as a whole – to ensure compliance with all applicable standards and requirements before granting authorization to discharge.

CLF Comments on Draft NH Small MS4 Permit (Feb. 20, 2009) at 16-17.

CLF reasserts its disagreement with EPA's proposed approach to authorize discharges on the basis of the limited information contained in NOIs. More specifically, without reviewing – prior to authorization – the specific best management practices (“BMPs”) permittees plan to implement, and the anticipated pollutant reductions to be achieved by those BMPs (including assurances that BMPs will prevent discharges that cause or contribute to water quality violations), the draft permit violates the Clean Water Act in two important ways.

A. The draft permit allows for authorization of discharges absent information enabling EPA to ensure Clean Water Act compliance

NPDES regulations state unequivocally that “[n]o permit may be issued: ... When the imposition of conditions cannot ensure compliance with all applicable water quality requirements....” 40 C.F.R. § 122.4(d) (emphasis added). Moreover, where EPA issues a permit for discharges of pollutants of concern into impaired waters that are subject to a TMDL, applicable regulations

operator of a small MS4 has decided to undertake will *in fact* reduce discharges to the maximum extent practicable. . . . Therefore, under the Phase II Rule, nothing prevents the operator of a small MS4 from misunderstanding or misrepresenting its own stormwater situation and proposing a set of minimum measures for itself that would reduce discharges by far less than the maximum extent practicable.

In fact, under the Phase II Rule, in order to receive the protection of a general permit, the operator of a small MS4 needs to do nothing more than decide for itself what reduction in discharges would be the maximum extent practical reduction. No one will review that operator's decision to make sure that it was reasonable, or even good faith. Therefore, as the Phase II Rule stands, EPA would allow permits to issue that would do less than *require* controls to reduce the discharge of pollutants to the maximum extent practicable. . . . We therefore must reject this aspect of the Phase II Rule as contrary to the clear intent of Congress.

EDC, 344 F.3d at 855 (citations and parentheticals omitted) (italics in original). See also *id.* at 855, n. 32, stating, in pertinent part:

That the Rule allows a permitting authority to review an NOI is not enough; *every permit must comply with the standards articulated by the Clean Water Act, and unless every NOI issued under a general permit is reviewed, there is no way to ensure that compliance has been achieved.*

The regulations do require NPDES permitting authorities to provide operators of small MS4s with “menus” of management practices to assist in implementing their Minimum Measures, see 40 C.F.R. § 123.35(g), but again, nothing requires that the combination of items that the operator of a small MS4 selects from this “menu” will have the combined effect of reducing discharges to the maximum extent practicable.

....

Absent review on the front end of permitting, the general permitting regulatory program loses meaning even as a procedural exercise.

(Emphasis added).

require that “the permitting authority *shall ensure that*: effluent limits...are consistent with the assumptions and requirements of any available [TMDL] wasteload allocation for the discharge prepared by the State and approved by EPA.” 40 C.F.R. § 122.44(d)(1)(vii)(B) (emphasis added).

The draft permit appropriately makes clear that “[t]he requirements found in [Parts 2.1 and 2.2] constitute the water quality based effluent limitations of this permit.” *See* Draft Permit, Part 2.1. Thus, its effluent limitations include, *inter alia*, the prohibition against discharges that “cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water.” *Id.* Part 2.1.1.a. Its effluent limitations *also* include, *inter alia*, the development of a Water Quality Response Plan (“WQRP”) addressing pollutants of concern and, as an essential component of such WQRPs, identifying BMPs that will be implemented to ensure that discharges do not cause or contribute to impairments. *Id.* Part 2.1.1.c; Part 2.2.2.a.ii. Such WQRPs are to be developed within one year of the permit effective date and must be provided as part of a Stormwater Management Program (“SWMP”), which also must be submitted within one year of the permit effective date. *Id.* Part 1.10.a; Part 1.10.2. SWMPs also must include, in addition to WQRPs, a “[d]escription of practices to achieve compliance with Part 2.2.1 (TMDL requirements) including . . . [t]he BMPs for the control measure or permit requirement . . . [and] [t]he measurable goal(s) for each BMP,” along with implementation milestones and timeframes and assessment measures for such BMPs. *Id.* Part 1.10.2.

The substantive information to be developed by permittees as part of their SWMPs, including WQRPs, is essential for purposes of defining the BMP-based effluent limits will implement, and for determining whether those BMP-based effluent limits will satisfy (1) the requirements of the Clean Water Act by *ensuring* compliance with all water quality requirements (*see* 40 C.F.R. § 122.4, 40 C.F.R. § 122.44(d)(1)(vii)(B), *supra*), and (2) the draft permit’s own prohibition against discharges that “cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water.” Draft Permit, Part 2.1.1.a. The draft permit’s approach of authorizing permit coverage on the basis of the limited information provided by NOIs, and without the substantive information required in SWMPs and WQRPs, violates CWA regulations because it allows EPA to authorize discharges that it knows are contributing to violations of WQS without first *ensuring* that the eventual BMP-based effluent limitations will satisfy all water quality requirements. Moreover, allowing permittees to develop SWMPs, WQRPs and associated BMPs *after* having been authorized under the permit, and absent further review and approval by EPA, amounts to impermissible self regulation. *See Puget Soundkeeper Alliance et al. v. State of Washington, Dept. of Ecology et al.*, 2008 WL 5510413 (Wash. Pol. Control Bd.) (Aug. 7, 2008) at 30.

B. The draft permit violates the Clean Water Act’s public participation requirements

“The [Clean Water] Act unequivocally and broadly declares...that ‘[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States.’ 33 U.S.C. § 1251(e)” *Waterkeeper*

Alliance, Inc. v. U.S. Env't Prot. Agency, 399 F.3d 486, 503 (2d Cir. 2005) (emphasis added). Rather than providing for, encouraging, and assisting public participation in the development and possible revision of the permit's essential water quality-based effluent limitations – such as SWMPs, WQRPs, and the specific BMPs contained therein – the draft permit's cart-before-the-horse structure precludes such participation. Specifically, nothing in the draft permit would provide the public the opportunity to receive notice, provide comment, and seek a hearing regarding permittees' substantive plans to control stormwater prior to EPA's grant of authorization under the permit. When, as is the case here, a polluter-created document such as a SWMP or WQRP contains the substantive information needed to assess whether a polluter will comply with applicable Clean Water Act standards, the Act requires *pre-approval* public notice and comment on the polluter's submission.³⁸ See *Waterkeeper Alliance*, 399 F.3d at 502-503 (recognizing Nutrient Management Plans under EPA's final rule regulating Concentrated Animal Feeding Operations (CAFO) were "effluent limitations" within meaning of the Clean Water Act; striking down CAFO Rule for depriving the public of its right to assist in the "development, revision, and enforcement of . . . [an] effluent limitation."). See also *Env't Def. Center*, 344 F.3d at 857 ("[I]f the Phase II Rule does not make NOIs "available to the public," and does not provide for public hearings on NOIs, the Phase II Rule violates the clear intent of Congress.").

V. Methods Used to Calculate Phosphorous Loads and Phosphorus Reduction Credits Must Ensure Accurate Results and Eliminate the Potential for Double-Counting

CLF strongly supports the more detailed and prescriptive approach for reducing phosphorus pollution, particularly for MS4s discharging to water bodies that are subject to phosphorus TMDLs. To ensure the effectiveness of the permit's regulation of phosphorus, however, we urge EPA to address the following in its final permit:

A. Credits for IDDE-related phosphorous reductions

Appendix F of the draft permit describes a methodology for calculating (1) the Watershed Phosphorus Load, described as "a measure of the annual phosphorous load discharging in stormwater from the impervious and pervious areas of the impaired watershed"; (2) the Watershed Phosphorus Pounds Reduction, also referred to as the "Phosphorus Reduction Requirement," representing "the required reduction in annual phosphorus load in stormwater to meet the WLA for the impaired watershed"; and (3) the BMP Load, representing "the annual phosphorus load from the drainage area to each proposed or existing BMP used by the BMP Load to claim credit against its Phosphorus Reduction Requirement." Permit, App. F, Attach. 1 at 1. Appendix F proceeds to describe the methods by which permittees are to calculate phosphorus load reduction credits for five enumerated "enhanced non-structural control practices." *Id.*, App. F, Attach. 2 at 1. It further states:

The methods include the use of default phosphorus reduction factors that EPA has determined are acceptable for calculating phosphorus load reduction credits for these practices.

³⁸ The draft permit's requirement that the permittee "shall annually provide the public an opportunity to participate in the review and implementation of the SWMP" does not satisfy this requirement, because the contemplated public participation is post-authorization. Draft Permit, Part 2.3.3.2.

. . . . The estimates of annual phosphorus load and load reductions resulting from BMP implementation are intended for use by the permittee to measure compliance with its Phosphorus Reduction Requirement under the permit.

Id.

Of particular concern, Appendix F includes the elimination of illicit connections and discharges among the non-structural control practices for which a municipality may claim a phosphorus reduction credit. More particularly, it includes the elimination of such discharges for purposes of claiming a phosphorus reduction credit without any consideration whatsoever of illicit discharges in the methodology for calculating the Watershed Phosphorus Load, Phosphorus Reduction Requirement, and BMP Load. Compare Attachments 1 and 2 of App. F. Whereas the methods set forth in Attachment 1 of Appendix F clearly and exclusively focus on phosphorus loads generated in stormwater by different types of land cover (i.e., pervious and impervious) and land uses (e.g., commercial, highway, forest), nowhere do they include consideration of phosphorus loads from illicit discharges and connections. We urge EPA to either (a) amend its methodology to add illicit discharges and connections to the calculations required in Attachment 1 of Appendix F, or (b) remove the elimination of illicit discharges and connections from among the non-structural BMPs for which permittees may claim phosphorus reduction credit as set forth in Attachment 2 of Appendix F, and set up a separate accounting for loads and load reductions associated with illicit discharges and the elimination of such illicit discharges.

Regardless of which approach EPA chooses to follow with respect to the accounting of loads and load reductions associated with illicit connections and their elimination, it is essential that the methodology not overstate the amount of phosphorus contained in discharges from illicit connections. Specifically, Appendix F, Attachment 2 contains an equation for calculating an “illicit disconnection credit” premised on the assumption of “5.3 mg/L (phosphorus concentration in sewerage).” *Id.* App. F, Attach. 2 at 7. We strongly question whether relying on a “phosphorus concentration in sewerage” is appropriate, in light of the diluting effects associated with inflow and infiltration. Ensuring a proper baseline assumption is essential for accurately assessing – and not inaccurately overstating – the phosphorus-load contributions of illicit connections and discharges, and the phosphorus-reduction benefits of eliminating such connections. Should EPA’s methodology overstate phosphorus loads associated with illicit connections and discharges, it could inaccurately understate the relative importance of phosphorus loads from stormwater and the reduction of such loads through stormwater controls. The above concerns pertain not only to the methods specifically enumerated by EPA, but also to any “Alternative Methods and/or Phosphorus Reduction Factors” the draft permit may authorize permittees to develop. See *id.*, App. F, Attach. 2 at 1.

B. Enhanced organic waste and leaf litter collection

The draft permit identifies “Organic Waste and Leaf Litter Collection program” among the five enumerated enhanced non-structural BMPs for which permittees may claim a phosphorus reduction credit. Permit App. F, Attach. 2 at 1, 5-6. Among those non-structural BMPs, the permit also allows permittees to claim phosphorus reduction credits for enhanced street-

sweeping programs, and catch basin cleaning. *Id.*, Attach. 2 at 1-4. Because street sweeping (whether as part of an enhanced program or not) and catch-basin cleaning can reduce the phosphorus loading impacts of organic waste and leaf litter, CLF is concerned that the draft permit could unwittingly allow for a double-counting (or at least *over*-counting) of phosphorus reduction credits. We urge EPA to take necessary measures to ensure that any phosphorus reduction associated with street-sweeping and / or catch basin cleaning not also be counted for purposes of phosphorus reduction credits associated with enhanced organic waste and leaf litter collection.

VI. Discharges to Impaired Waters

As discussed in Part I, *supra*, CLF supports the more stringent and prescriptive requirements of the draft permit as they relate to discharges to impaired waters. In addition, CLF specifically notes its support for the draft permit's flexible approach of allowing additional waters to be treated as "impaired" based on water quality or modeling information. *See* Draft Permit § 2.2 ("EPA or the State agency may determine that additional waters shall be treated as 'impaired' waters pursuant to this Part based on water quality or modeling information and shall notify the affected MS4 operators of any such determination."). In light of the five-year permit term, we believe this flexibility is critical for addressing impairments that may not be currently known and / or impaired conditions that may not be documented yet in New Hampshire's Section 303(d) list of impaired waters.

VII. Discharges Subject to an Approved TMDL

CLF supports the draft permit's provision expressly stating that, in addition to specific requirements set forth in the permit relative to compliance with approved TMDLs, "EPA may notify the small MS4 of the need to comply with additional requirements that are consistent with the assumptions and requirements of the Waste-Load Allocation (WLA)." Draft Permit, Part 2.2.1.b.

CLF urges EPA to amend the first sentence of Part 2.2.1.g as follows: "Permittees identified in Appendix F, or above, shall document in their annual report all control measures implemented during the reporting period ~~or~~ and planned to be implemented in the next reporting period to control pollutants identified in the approved TMDLs and provide an assessment of the effectiveness of the implemented BMPs, **and of the projected effectiveness of any additional BMPs to be implemented in the next reporting period, in terms of complying with the applicable TMDLs.**" *See* Draft Permit, Part 2.2.1.g (bold-face type indicates proposed new language).

VIII. Discharge to an Impaired Water Without an Approved TMDL

CLF strongly supports the general requirement set forth in Part 2.2.2 that if there is a discharge from an MS4 to an impaired water without an approved TMDL, "the permittee shall address in the SWMP and annual reports how the discharge of pollutant(s) identified as causing the impairment (pollutant(s) of concern) will be controlled such that they do not cause or contribute to the impairment." *See* Draft Permit, Part 2.2.2. We trust that the parenthetical language

immediately following the above-quoted provision (pertaining to specific requirements pertaining to the Great Bay Estuary watershed) is intended to impose requirements that are supplemental to, and that do not supplant, the above-quoted general requirement. CLF supports the WQRP requirements set forth in Part 2.2.2, with the qualification that such plans should be required to include LID (*see supra* Parts II and III) and should be subject to public notice and comment and EPA review and approval prior to authorization of coverage (*see supra* Part IV).

IX. MS4s Affecting the Great Bay Estuary

The Great Bay estuary is one of New Hampshire's most productive and diverse habitats. Comprised of the Piscataqua River, Little Bay and Great Bay, and receiving freshwater flows from several small creeks and seven major rivers – the Oyster, Bellamy, Lamprey, Squamscott, Winnicutt, Cocheco and Salmon Falls Rivers – the estuary contains a broad diversity of habitat types, and a broad array of wildlife species. Among its dependent wildlife, the Great Bay estuary provides important habitat for numerous fish species.³⁹ Many of these species, such as Atlantic cod, are important commercial fish. Others, such as a variety of herring, are forage fish that support commercial fisheries by serving as an important building block in the marine food chain. Still other species, such as striped bass and bluefish, are important recreational fisheries. In addition to finfish, the estuary supports shellfish, such as oyster and blue mussels, and other invertebrates.

Eelgrass is a cornerstone of the Great Bay estuary ecosystem, serving an important role for fish, invertebrates and birds alike. Eelgrass meadows in the estuary provide breeding grounds, nurseries, food, and cover for many fish as well as important habitat for invertebrate species. The abundant aquatic life found in eelgrass meadows, in turn, provides an important food source for birds. Eelgrass meadows also serve a critically important water quality function by stabilizing sediments and filtering contaminant. As the N.H. Estuaries Project has noted: eelgrass is “an essential habitat for the estuary, the loss of which would fundamentally alter the ecosystem of the bay.” NHEP, *Environmental Indicator Report: Critical Habitats and Species* (March 2006) at 8.

The Great Bay estuary is in jeopardy as a result of increasing nitrogen concentrations and significant declines in eelgrass habitat. As a result, assessment units throughout the estuary have been designated as impaired, pursuant to Section 303(d) of the Clean Water Act, for failing to meet aquatic life uses. While a small number of communities in the Great Bay estuary watershed have persistently argued that the science of eutrophic conditions in the estuary somehow has not been sufficiently established, CLF agrees that there is an urgent need to reduce nitrogen discharges into the estuary from MS4s, wastewater treatment facilities, and other sources. CLF agrees with and supports EPA's assessment that “there is sufficient basis to begin addressing nitrogen discharges to the Great Bay notwithstanding any remaining scientific

³⁹ The estuary is designated Essential Fish Habitat (EFH) by the National Marine Fisheries Service for numerous fish species in various life stages, including Atlantic cod, Atlantic herring, Atlantic sea scallop, haddock, pollock, red hake, white hake, window-pane flounder, yellowtail flounder, Atlantic mackerel, and bluefish. The Cocheco River, which flows through Dover into the Piscataqua River, is designated EFH for Atlantic salmon for all of its life stages. In addition to these EFH-designated species, the estuary supports numerous other fish, including striped bass, smooth flounder, rainbow smelt, Atlantic sturgeon, American shad, river herring (blueback herring and alewives), black sea bass, American eel, white perch, sea lamprey and Atlantic silversides.

uncertainty regarding the precise relative contribution of nitrogen from MS4 discharges.” Fact Sheet at 22; *see* Correspondence from Drs. Ivan Valiela and Erin Kinney to Tom Irwin, CLF (July 28, 2011), provided herewith as Attachment 3. CLF further agrees with the special treatment the draft permit provides for addressing MS4 discharges to impaired waters in the estuary, and tributaries to such waters. We believe, however, that the nitrogen-control elements of the draft permit are not sufficiently detailed and prescriptive to address the significant water quality problems facing the estuary, and that the permit should be amended to model its approach for nitrogen control on the phosphorus control plan requirements set forth in Appendix F, with more detailed requirements and timelines.

With specific regard to requirements and methodologies set forth in Appendix H, Attachment 1 of the draft permit, CLF has the same concerns with respect to illicit discharges and nitrogen pollution as expressed *supra* relative to illicit discharges and phosphorus. Specifically, CLF is concerned with the assumption that total nitrogen concentrations in illicit discharges are equivalent to the total nitrogen concentrations found in sewerage – an assumption that may inaccurately overstate the amount of nitrogen reduced by eliminating illicit connections and discharges. *See* App. H, Attach. 1 at 1 (using 40 mg/L total nitrogen, the “nitrogen concentration in sewerage,” as assumed concentration of total nitrogen in illicit discharges). We also urge EPA to ensure that WQRPs avoid potential double-counting of nitrogen reductions associated with related BMPs (*e.g.*, street-sweeping and organic waste / leaf litter collection programs could lead to double-counting of nitrogen reductions – a scenario which must be avoided to accurately assess the effectiveness of SWMPs and WQRPs).

Again, CLF appreciates the opportunity to provide these comments. We request that we be provided notice of any other proceedings pertaining to this draft permit. Should you have any questions regarding these comments, please do not hesitate to contact me.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Tom Irwin".

Tom Irwin
V.P. & CLF New Hampshire Director



August 15, 2013

Newton Tedder
US EPA Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Dear Mr. Tedder,

Charles River Watershed Association (CRWA) has reviewed the draft Small Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) general permit for New Hampshire (draft permit) and submits the following comments.

CRWA is a research and advocacy organization, formed in 1965 in response to public concern about the declining condition of the Charles. We work extensively on stormwater pollution issues, and in particular have conducted research and modeling on phosphorus pollution in the Charles River; undertaken wet weather end-of-pipe and receiving water monitoring programs; and designed and constructed stormwater improvement projects. We work in partnership with agencies, municipalities and organizations across the country, and have focused on stormwater issues throughout the Region 1 area.

General

CRWA has reviewed the draft permit with interest as it reflects EPA's significant commitment to the progress that has been made in the past decade in the science and regulation of stormwater management in the New England region. It is widely acknowledged that stormwater is one of the main sources of pollution to the nation's surface waters. It has also been amply demonstrated through research, demonstration projects and several successful state and municipal stormwater programs that stormwater pollution can be significantly reduced, resulting in measurable improvements in receiving water quality, habitat restoration, and improved hydrologic function.

The MS4 general permit is an important regulatory tool, and when paired with additional stormwater regulatory programs and permits, provides meaningful protections for surface waters. The MS4 program in New England, however, is past due for revision and improvement. The current permits, dating from 2003, do not reflect best current practice for municipal stormwater management, and certainly do not result in achievement of water quality standards. Over the past five years, there has been significant discussion, review and public input to EPA about proposed updates to the MS4 program, and EPA has responded in exhaustive detail. Small MS4 permittees have had ample

opportunity to develop stormwater management programs over time, and have also had many years to prepare for the more stringent requirements that will be necessary to meet the objectives of the Clean Water Act. We strongly encourage EPA to move forward with planned updates and improvements to all stormwater permit programs, in particular the MS4 general permit.

CRWA is supportive of the draft permit, and we believe it will help improve water quality in New Hampshire's water bodies and provide permittees with clear guidance and support for their stormwater management programs. In particular, we note the highly detailed technical analyses undertaken by Region 1 staff and their consultants to understand and share with permittees and the public the physical, technical and fiscal implications of the new permit. We believe the tools and guidance documentation EPA has provided to assist municipalities in developing sound, fiscally responsible programs will be of tremendous benefit. By providing standardized methodologies for permittees to estimate current loads, and the reductions they can achieve using a variety of measures, EPA has also created a fair and level playing field, reduced the burden on permittees to develop their own methodologies, and provided permittees with certainty that their programs, if developed using these tools, will comply with the permit.

We urge EPA Region 1 to move forward expeditiously to finalize this permit, and to move ahead with planned revisions to the many stormwater permits in the Region that have not been updated since 2003. We provide below a number of specific comments by section to assist EPA in finalizing the permit.

Comments by section of the draft permit

1.10 Stormwater Management Program (SWMP)

We suggest 1.10 c. be either modified or eliminated. By providing a permit condition that encourages but does not require adequate funding for the program, EPA provides the appearance of a potential loophole for permit compliance. If the permit cannot be modified to *require* adequate funding, this section should be removed. The development of a compliant program is a requirement of the permit and failure to identify sources of funding cannot be used as an excuse not to do so.

1.10.2 Contents of the Stormwater Management Program

This section should contain language requiring the permittee to use (or at a minimum demonstrate that they have considered using) Low Impact Development (LID) and Green Infrastructure (GI) techniques as part of their program to comply with 2.0, 2.1 and 2.2, as has been required to demonstrate compliance in 2.3.5. If they do not use LID or GI techniques as part of their program to comply with water quality standards (section 2.1) and discharges to impaired waters (section 2.2), they should discuss why they have been determined not to be feasible. Current best practice in stormwater management in urbanized areas clearly includes the use of LID and GI, and many EPA approved programs including CSO Control Plans, Settlement Agreements and Consent Decrees require LID and GI practices. EPA states on its own website: "Since 2007, EPA's Office of Water has released four policy memos supporting the integration of green infrastructure into NPDES permits and CSO remedies."¹ The LID and GI requirements should also be specified in sections 2.2.1.g and 2.2.2.a.ii.

¹ http://water.epa.gov/infrastructure/greeninfrastructure/gi_regulatory.cfm

2.3.4 Illicit Discharge Detection and Elimination (IDDE) Program

CRWA strongly supports the revised methodology and detailed approach to the IDDE program in the draft permit. Illicit discharges remain a persistent problem, and an aggressive, standardized approach to detection and elimination is necessary to achieve water quality standards and reduce the impacts of stormdrains and sanitary sewer systems on receiving waters.

2.3.4.4 Sanitary Sewer Overflows

CRWA suggests the language and requirements in this section be strengthened, with a particular focus on locations where repeated SSOs are identified. In spite of the permit specifications that SSOs are a violation of the permit, the primary requirements of this section remain focused on inventorying and reporting SSOs. Although the later subsections detail inspection, mapping and sampling protocols that will assist in SSO remediation, specific remediation requirements should be made in this section. In practice, many municipalities have ongoing and recurring SSOs and they are not moving expeditiously to eliminate them, nor are they aggressively taking interim mitigation measures to minimize the discharge of pollutants unless EPA begins enforcement proceedings. As the permit does in other sections, we suggest that specific required mitigation measures for areas with recurring SSOs be spelled out in this section.

2.3.4.8.h Illicit Discharge Prevention Procedures

As stated above, we suggest this section also be strengthened to include specific measures that should be taken to remediate SSOs.

2.3.6 Stormwater Management in New Development and Redevelopment (Post Construction Stormwater Management)

CRWA encourages EPA to modify this section to state that the program should apply to new development or redevelopment projects that disturb one or more acres of land, *or less if determined appropriate by the permittee...* (italics added). Many municipalities are highly developed and may have passed or wish to pass post-construction stormwater control ordinances for projects that redevelop sites that are less than an acre. They should be encouraged and explicitly allowed to do so.

2.3.6.8 Directly Connected Impervious Area

CRWA strongly supports the inventorying and reporting of IA, including tracking changes in IA over time, and the retrofitting of IA to reduce stormwater runoff. However we are not confident that at this time there are clear and widely accepted practices for estimating DCIA. As a result, it is not clear that this requirement will benefit stormwater management programs and may create confusion, conflicting approaches, and unenforceable conditions on permittees. We suggest that, for this permit cycle, this section be modified to eliminate DCIA and to focus on IA only.

2.3.7 Good Housekeeping and Pollution prevention for Municipal Operations

2.3.7.1.a should include an evaluation of areas where there is existing or potential erosion, and the development of a remediation plan. Soil erosion is significant in many parks and open spaces, and often represents a highly effective and inexpensive opportunity for municipalities to reduce stormwater

pollution, and phosphorus loading in particular. The section should include reference to 2.3.7.2.b.iv, the SWPPP.

2.3.7.1.d.ii The language in different bullets of this section is confusing and should be clarified. It is not clear if all catch basins should be kept below 50% full, or if this only applies to certain catch basins. CRWA suggests that catch basin sumps should always be kept no more than 50% full, regardless of whether the receiving water is impaired or has a TMDL.

2.3.7.1.d.iii CRWA suggests that once a year street sweeping operations are entirely inadequate. An absolute minimum of twice per year sweeping should be required to demonstrate any effort at good housekeeping.

Appendix F: Requirements of Approved Total maximum Daily Loads

Lake and Pond Phosphorus TMDLs

CRWA is strongly supportive of the development of the detailed appendix and related attachments to assist in the development of phosphorus control programs (PCPs) that are compliant with the permit and achieve phosphorus reductions consistent with wasteload allocations (WLAs) in TMDLs.

There is one major problem in the draft methodology: the phosphorus reduction credit granted to permittees for IDDE is inconsistent with the methodology used to estimate the existing phosphorus load, and does not appear to be consistent with the way WLAs were calculated in phosphorus TMDLs. EPA should either remove this credit altogether, or at a minimum establish a very low maximum percentage of the overall phosphorus reduction requirement that can be achieved with an IDDE program. This is especially important in the case of a general permit, where highly detailed site specific data is not being used to establish permit requirements.

Watershed models, TMDLs and watershed assessments by the nature of their scale and design, use well-established methodologies for estimating typical or average stormwater pollution loads and apply these rates across a broad area based on land use types, topography, soils and other statistically relevant factors. Even models that use more detailed hydrologic routing, rainfall data, and dynamic in-stream processes rely on some averaged or typical measured concentrations which are applied across a modeled area. Illicit cross connections are sporadic, geographically isolated, and difficult to separate out from other sources of stormwater pollution in a modeled condition. They are not generally included in such models except as they may influence the overall average concentration of a pollutant in stormwater.

Furthermore, TMDLs do not include a WLA for illicit cross connections because they are not allowed under the permit and thus cannot have a maximum daily load allowance.

Since illicit connections have not been explicitly included in estimating existing loads, it is not appropriate to give them credit when estimating reductions. To allow a virtually unlimited credit towards phosphorus removal in a PCP that is intended to comply with a TMDL appears to give them credit under the WLA. Furthermore, from a practical perspective, CRWA has demonstrated with sampling and modeling that stormwater loads – even those with no apparent cross connections whatsoever – can still cause significant violations of water quality standards in receiving waters.

Clearly, the MS4 general permit is intended to focus on a permittee's stormwater management, and its phosphorus reduction credits should reflect improvements in stormwater control and treatment, not basic, required corrections of failing sewage infrastructure.

Attachment 2

CRWA applauds EPA for developing calculation methods and tools that are sufficiently robust to provide a high level of confidence they will achieve required control levels, and yet are simple enough to be of great assistance to permittees, providing clarity, certainty and cost-savings. We suggest several modifications to these methods.

Since the publication of this draft permit, the USGS has published a detailed report (Scientific Investigations Report 2012 – 5292) on the results and findings of an extensive study of enhanced street sweeping practices in Cambridge, Massachusetts. We suggest EPA update the phosphorus reduction efficiency factors in this section to reflect the findings of this study.

EPA may wish to identify a simpler methodology for calculating credits for catch basin cleaning. Given the low maximum credit a permittee can obtain for this credit, there is a high burden of data collection.

We encourage EPA to review several new expert panel reports from the Chesapeake Bay Program prior to finalizing the credits for no phosphorus fertilizer, in particular the Recommendations of the Expert Panel to Define Removal Rates for Urban Nutrient Management published on March 14, 2013 (available at http://www.chesapeakebay.net/publications/title/recommendations_of_the_expert_panel_to_define_removal_rates_for_urban_nutri). In addition, it is not clear to CRWA whether the export load rates for pervious soils in Table 2-1 should be broken out by soil type. Those for hydrologic soil group D (DevPERV HSG D) which will be the default soil group used in many instances because there is not sufficient site specific data, seem very high. It may be more appropriate to use an average load rate, or at least to use HSG C if there is no information available.

Regarding the specific IDDE credit described in this section, see our comments above.

Attachment 3

CRWA believes the resources EPA Region 1 put into developing methodologies and calculation tools for estimating the phosphorus removal of structural practices serve as an outstanding resource for permittees and the public. Over time, as more data becomes available, and more practices are evaluated specifically for phosphorus reduction, EPA may wish to change the credits allowed. Thus we encourage the permit to specify that calculations should be based on the most up to date versions of the Tables and Charts, which may be modified, and direct permittees to a website where such updates will be made available.

We also encourage EPA to continue to evaluate structural practices' effectiveness over time, as well as their effectiveness at removing different types of phosphorus and phosphorus in different states of availability. As new research emerges, the methodologies and calculation tools should be modified accordingly.

In conclusion, CRWA strongly supports the draft permit overall, and we encourage EPA to finalize it as soon as possible, and to use it as a model for other stormwater permits in the Region. Please do not hesitate to contact me should you have questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kate Bowditch", with a long horizontal flourish extending to the right.

Kate Bowditch
Director of Projects



Town of Derry

"Derry, New Hampshire's Place to Be"

DEPARTMENT OF PUBLIC WORKS,
Michael Fowler, P.E., Director
Thomas A. Carrier, Deputy Director

PW13-241

August 13, 2013

Newton Tedder
US Environmental Protection Agency
5 Post Office Square – Suite 100
Mail Code-OEP06-1
Boston, MA 02109-3912

RE: Comments – 2013 Draft Municipal Separate Storm Sewer System General Permit

Dear Mr. Tedder,

The Town of Derry is submitting the attached comments on the Draft 2013 Municipal Separate Storm Sewer System General Permit (MS4GP) for your consideration.

The Town of Derry remains committed to maintaining and improving the environmental health of the town in the interest of the health, safety and welfare of its residents and environment. Our commitment has been demonstrated through development of an environmental program that includes: ensuring compliance of our own operations; outreach to our residents and local businesses to increase public awareness, knowledge, and participation; participation in local educational and watershed organizations; and participation in or attendance at regulatory workgroups, training, and workshops in order to keep apprised of ever-changing regulatory environment.

The Town of Derry appreciates the opportunity to provide these comments. We look forward to working with USEPA to develop a flexible yet proactive stormwater management program that strives toward meeting the intent of the CWA. If you have any questions, please contact Craig Durrett or me at (603) 432-6144

Very truly yours,



Michael A. Fowler, P.E.
Director of Public Works

Cc/att: Craig Durrett, Derry Public Works

/csd

Sections 2.1 and 3.1 of the draft permit includes provisions to ensure discharges from the MS4 do not cause or contribute to an exceedance of water quality standards, in addition to requirements to reduce the discharge to the maximum extent practicable specifically stating that discharges shall not cause or contribute to an exceedance of applicable water quality standards for the receiving water.

- This raises the concern that for many of the impairments, the pollutants of concern are universally present in rain/runoff or groundwater discharge due to natural sources, including mercury, phosphorus, bacteria, and various metals and that mere presence can be interpreted by EPA as contributing to the exceedance or impairment.
- This also implies that regardless of how small a concentration is in the MS4 discharge, the Permittee is considered responsible for causing the impairment. Even though the cause of the impairment may be from a non-MS4 discharger, the liability for the violation of water quality standards rests with the permittee if it “contributes” to a violation but is not “causing” the violation.
- This all inclusive interpretation would create automatic noncompliance and mandate excessive and expensive treatment above and beyond any contribution by the MS4 or private dischargers with little, if any, realized benefit or improvement of water quality.
- The definition for “maximum extent practicable” (MEP) though the draft permit should not imply immediate implementation of a best available technology or be in immediate noncompliance. MEP should be a phased approach through an iterative process.

Section 2.1.2.iii states that there shall be no new or increased discharges from the MS4 to impaired waters unless the permittee demonstrates that there is no net increase in loading from the MS4 to the impaired water of the pollutant(s) for the waterbody is impaired. Does EPA intend to apply this to private entities as well that may discharge through privately owned outfalls for which the permittee has no control?

Section 2.2.1.b Discharges subject to an approved TMDL that specify a wasteload allocation must satisfy the appropriate requirements of Appendix F for Chloride TMDLs. Appendix F specifies that measures to address the TMDL shall include the development of a Salt Reduction Plan that includes specific actions designed to achieve salt reduction on private facilities that drain to the MS4 including requirements for private parking lot and private street owners and operators to use trained and certified commercial salt applicators with reporting of annual salt usage within municipal boundaries. The chloride TMDL and NHDES studies recognize that approximately 50% of the salt imports in the affected watersheds are from the private and commercial sector and obviously contributors to the chloride impairments. The Salt Reduction Workgroup (SRW) made up of representatives from USEPA, FHWA, NHDES, NHDOT and the four affected communities (Derry, Londonderry, Salem, and Windham) have had extensive discussions on approaches to addressing the private/commercial sector. It was generally agreed that regulating and enforcing allocation of the private sector was practically impossible to do. To reiterate concerns expressed previously to USEPA and the SRW, watershed boundaries do not follow municipal boundaries and the majority of commercial salt applicators are transient in that they treat numerous

sites during a deicing event that spans many watersheds and municipalities. For instance, a commercial applicator covers several properties for a major retailer from Derry to Nashua. The SRW has chosen to address the private sector through certification, training, outreach, and state legislative changes at the state regulatory level. Even though the permit allows a permittee to rely on the state programs in compliance with the requirements, establishing local requirements for use of state-certified applicators by the private sector is impossible to enforce.

Section 2.2.1 and Table F-3 states that the Town of Derry is subject to an approved TMDL for Phosphorus at Hood Pond, however the link included in the draft permit directed the reader to the May 2010 draft TMDL on which the Town submitted comments. A Final phosphorus TMDL was not available for review either through USEPA or NHDES websites. Upon further inquiry, the Town became aware of the final TMDL dated May 2012, a copy of which was provided to the Town on April 2, 2013 along with USEPA's approval letter dated June 2012. The draft TMDL was based on a grab sample from 1997 with a concentration of 54 ug/l, however collection of a more recent sample in 2011 prior to the final TMDL report indicated a concentration of 27 ug/l (50% reduction). This is only slightly above the atmospheric deposition concentration calculated for the loading estimate. In EPA's approval of the TMDL, EPA states:

In this watershed, nonpoint sources of pollution may include diffuse stormwater runoff and overland flow, surface water base flow and groundwater seepage, septic systems, internal cycling of nutrients, waterfowl, and atmospheric deposition. Because there are little available data in this watershed to determine how much of the nonpoint sources are attributable to regulated vs. unregulated sources, DES has chosen to allocate unregulated stormwater and other nonpoint source runoff to the waste load allocation (WLA), which EPA has said is an acceptable approach when insufficient data are available.

This places a more conservative endpoint than what could feasibly be achieved as is emphasized in EPA's approval letter:

The allocation calls for significant reductions from the major contributing tributary watershed and from direct drainage of between 49 - 76% (TMDL, Section 4.6). DES acknowledges that it is likely that the final allocations, which reduce overall loading by 75% in total, will be challenging to achieve.

The Final TMDL further states that *"successful implementation of this TMDL will be based on compliance with water quality criteria for cyanobacteria scums as well as thresholds for other nutrient related response parameters such as dissolved oxygen and chl a. These water quality variables should be the focus of the VLAP or LLMP. It is recommended that prior to initiating any expensive phosphorus control measures, monitoring should be conducted to confirm that nutrient related water quality violations exist."* This contrasts with the draft permit requirements to go through the exercise of preparing a phosphorus reduction plan with an aggressive implementation schedule.

The Town of Derry met with NHDES and other MS4 communities to discuss various stormwater issues and TMDLs. Detailed review by NHDES indicated that Hood Pond was erroneously listed in 2006 for cyanobacteria. On July 30, 2013, NHDES released "Impairments Removed From the 303(D) list of Threatened or Impaired Waters" in which it was concluded that Hood Pond should be placed in a Category 2 for cyanobacteria instead of Category 5. The Town of Derry wants to emphasize that even though Hood Pond is removed from the 303(D) list for the identified impairment, the Town will not in any way relax its efforts to improving stormwater quality relative to nutrients within the watershed. In addition, the reduction in phosphorus detected between the 2011 and 1997 sampling events, though data is limited, may be a demonstration of the efforts taken since the implementation of the 2003 MS4 permit. As such, collection of more recent data for all TMDLs and impairments along with continued periodic monitoring may further demonstrate improvements in other impaired waters.

Section 2.2.3 identifies Derry as being within the Great Bay Estuary watershed and therefore subject to preparation of a Water Quality Response Plan. It is important to note that only about 500 acres (or 0.8 square miles) of the town is actually within the watershed. The majority of this area is undeveloped forest, surface water, or bordering wetlands and is upgradient of the Towns of Chester and Sandown, both of which are rumored to have received waivers from the MS4 permit. The Derry's contribution in the watershed is negligible compared to the area within the downstream towns. Given the natural assimilative capacity of the streams within the Derry portion of the watershed, and the downstream segments within the other referenced communities, implementation of any structural BMPs would be a waste of resources.

Section 2.3.4.4 adds unnecessary reporting requirement involving sanitary sewer overflows. Municipalities are already required to report any SSOs under other programs to NHDES and USEPA (CMOM). There is little value to adding the burden of another reporting requirement of the same information to a different program under the same agency. Typically the wastewater departments are separate from those overseeing the town's stormwater program and should not have to be concerned about how many separate entities within EPA to report the same information to. This section also references Appendix B Section B.12 which appears to be more applicable to a NPDES waste water discharges and not relevant to MS4 stormwater discharge. In addition, B.12.F specifies 24 hour reporting for "any noncompliance which may endanger health or the environment. This is a very broad and all inclusive requirement in that any kind of discharge could be deemed to "endanger the environment".

Section 2.3.6.3 requires permittees modify their stormwater ordinance or regulation to require compliance with the NH Stormwater Manual. The Town objects to mandating "compliance" with a specific "manual" in that it is meant to be a reference and are not a statutory regulation and should be removed from the permit. The Town has already included in its ordinance and regulations a reference to industry accepted and state (DES and DOT) Manuals as guidelines for implementing best management practices in the interest of stormwater pollution prevention.

Section 2.3.7.1(d)(ii) requires permittees to routine inspections, cleaning, and maintenance of catch basins such the no sump shall be more than 50% full. This requirement appears to be arbitrary and

without supporting evidence. Existing permittees have a catch basin cleaning program in place that is optimized based on experience, to address which drainage systems need cleaning more often and at what capacity. The sump capacity and need for cleaning is subject to many factors including catchment area, land use within the drainage area, flow rates and volume, and amount of impervious surface. Catch basin sumps and their operation and maintenance are best management practices (BMPs), the specifics of which should not be regulated under the draft permit. The requirement to record the exact volume of material removed from each catch basin is also an unnecessary burdensome task imposed on an already taxed municipality and its contractors that slows down work and increases costs simply to take time to calculate each catch basin's volume of material. Permittees already report total volume removed each year.

Section 2.3.7.2 imposes duplicate requirements already imposed and implemented under USEPA's Multisector General Permit and should be removed from the draft MS4 permit. The Town of Derry already prepared a single SWPPP in accordance with MSGP guidelines and regulations. Although we were not required to, we chose to write one all-inclusive SWPPP that covers our transfer station, waste water treatment plant, highway garage, salt storage facility, vehicle maintenance facility, and septage transfer facility (and septage spill response plan for private haulers) which above and beyond regulatory and permit requirements. In addition, the Town was required under NHDES regulation to prepare a separate Transfer Station Operations Plan which includes duplicate coverage of materials handling relative to overall pollution prevention.



DEPARTMENT OF THE NAVY

COMMANDER
NAVY REGION MID-ATLANTIC
1510 GILBERT ST.
NORFOLK, VA 23511-2737

IN REPLY REFER TO:

5090
EVN40/09/RE309

JUN 19 2013

Newton Tedder
US EPA-Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Dear Mr. Tedder:

SUBJECT: DEPARTMENT OF DEFENSE (DOD) COMMENTS ON THE PROPOSED
DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) GENERAL PERMIT (GP) FOR DISCHARGES FROM SMALL
MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) TO
CERTAIN WATERS OF THE STATE OF NEW HAMPSHIRE

As the Department of Defense (DoD) Regional Environmental Coordinator (REC) for U.S. Environmental Protection Agency (EPA) Region 1 and on behalf of the military services, the Commander, Navy Region Mid-Atlantic is responsible for coordinating responses to environmental policies and regulatory matters of interest. We appreciate the opportunity to provide comments for your consideration in response to the Notice of Availability for the subject GP. As discussed below, we have significant concerns with the language in Section 5.2 of the permit requiring that federal agencies comply with the development and redevelopment post construction stormwater control standard in Section 438 of the Energy Independence and Security Act of 2007 (EISA § 438).

DoD is committed to managing stormwater from its facilities' development and redevelopment projects through green technology and low impact development design principles and practices, and has implemented policy to do so. To that end, DoD is already fully implementing the provisions of EISA § 438, consistent with the EPA Technical Guidance, using Low Impact Development techniques in accordance with DoD policy. We share EPA's goal of restoring the quality of New Hampshire waters.

The draft permit includes requirements from EISA § 438 in a Clean Water Act (CWA) NPDES permit. We note EISA and the CWA are two separate statutes having related but distinct underlying purposes and enforcement mechanisms. The CWA is designed to eliminate the discharge of pollutants into navigable waters of the United States and the accompanying sovereign immunity waiver as related to federal facilities provisions apply to the "control and abatement of water pollution". EISA § 438 is designed to maintain or restore to the maximum extent technically feasible the pre-development hydrology of the property with regard to the temperature, rate, volume, and duration of flow. Therefore, EISA § 438 is designed to retain stormwater onsite to allow infiltration into groundwater rather than entry into navigable waters of the United States and goes beyond the waiver provision. We also note Congress did not amend the CWA when it passed EISA, nor the accompanying CWA sovereign immunity waiver provision. Any waiver of sovereign immunity must be unequivocally expressed and cannot be implied. Given that EISA does not have a sovereign immunity waiver, clearly EISA § 438 was written to be self-executing by federal agencies in the management of stormwater from federal development and redevelopment projects.

We do not believe the CWA authorizes the inclusion of EISA § 438 standards in New Hampshire GP-NHR042000. The CWA contains broad enforcement authorities to ensure compliance by the entire regulated community, including federal facilities, in applicable circumstances, but Congress did not extend that authority to the substantive EISA § 438 requirements. Prior to the inclusion of requirements based on EISA § 438 in an MS4 permit, we assume that EPA would complete federal rulemaking under the Administrative Procedures Act to amend its stormwater regulations, providing all stakeholders notice and the opportunity to comment on the standards, their effectiveness, and the economic impact of the imposition of such standards. EPA has only started this process by requesting for input on a rulemaking for newly developed or redeveloped sites through issuance of its Stakeholder Input on Stormwater Management Including Discharges From New Development and Redevelopment, 74 Fed. Reg. 68617 (December 28, 2009). As you know, DoD submitted comments on that proposal on February 24, 2010, requesting clarification of authorities under section 402(p) of the CWA.

The draft permit proposes to hold federal facilities to a more stringent performance standard than non-federal facilities. The federal government is only subject to requirements under the CWA to the extent it is treated in a non-discriminatory manner. Under CWA § 313(a), federal agencies are subject to "all Federal State, interstate, and local requirements . . . respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity." In this case, EPA has proposed two different stormwater performance standards, one for federal entities and one for non-federal entities. The draft permit will place New Hampshire in the position of being unable to comply with the permit as they would be unable to enforce a requirement that discriminates against its federal government dischargers.

DoD is also concerned with the incorporation of portions of EPA's EISA § 438 Technical Guidance as legally binding requirements in a NPDES permit. As required by EO 13514, EPA issued Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under EISA § 438, in December 2009. In issuing the Technical Guidance, EPA explained that the document was intended solely as guidance, and did not impose any legally binding requirements on federal agencies or impose legal obligations upon any member of the public. DOD was surprised to see elements of the Technical Guidance as mandatory elements in an NPDES permit. It is not clear why these performance standards were included in the draft permit, as DOD has already instructed its installations to implement EISA § 438 consistent with EPA's Technical Guidance, pursuant to a policy memorandum in January 2010.

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EVN40/09/RE309

If you have any questions, my points of contact for this matter are Lieutenant Commander Mark Nevitt, JAGC, U.S. Navy at mark.nevitt@navy.mil or (757)322-2938 or Mr. William Bullard, Senior Water Program Manager, at (757) 341-0429 or william.bullard1@navy.mil.

Sincerely,



CHRISTINE H. PORTER
Director, Regional Environmental
Coordination
By direction of the Commander

Enclosure: Department of Defense Comments

Copy to: (1) Regional Environment & Energy Office - Northern
Coordinator, Office of the Secretary of Army
(2) U.S. Air Force Regional Environmental Office,
Eastern Region

City of Dover, NH Comments on draft 2013 NH MS4 Permit

The City of Dover and numerous other NH communities have engaged the law firm of Sheehan, Phinney, Bass and Green to prepare comments to the draft 2013 NH MS4 Permit on our behalf. The comments prepared by Sheehan, Phinney, Bass and Green are incorporated into the City of Dover's comments by reference.

In addition to the comments submitted by Sheehan, Phinney, Bass and Green on behalf of the City of Dover and other NH MS4 communities, the City of Dover has the following additional comments:

Upon review of all the requirements in the draft 2013 NH MS4 permit and charting them onto a time line, two things become abundantly clear. First, that in general all of the requirements in the proposed permit will not be able to be accomplished in the five year permit period. It is unlikely that even within 20 years everything needed to meet water quality standards will be accomplished. Second the permit is heavily front loaded with tasks that the City has neither the staff nor financial resources to accomplish as the permit requires.

While improving water quality in our water bodies is a community priority, it must be put in perspective of other community responsibilities and priorities. It is easy to assume a community can afford more spending to protect the environment when looking solely at a community's median household income. However, this is too simplistic of an analysis which is insensitive to the current dynamics associated with the Federal and State programs which are mandated and which previously were subsidized by the Federal and State funds. As the Federal and State funding has dried up not just for environmental programs but all federally subsidized programs, the local communities have been scaling back on local programs and staff in order to make up for the loss of Federal and State funding of the mandated programs. Despite the belt tightening at the local level, the down shifting of mandated program costs have pushed local property taxes higher.

EPA needs to recognize that improving water quality in our water bodies is important but it needs to be accomplished in a financially sustainable way. Region One EPA Administrator Spaulding himself acknowledged at a presentation in Stratham last spring, that "EPA cannot save Great Bay. It is up to the local communities to save it." EPA must recognize and acknowledge that communities have done a great deal already and that communities are willing to continue doing even more, but it must be at a sustainable level.

Section 2.1.2.b.iii New or Increased Discharges to Impaired Waters

This provision states that there is no net increase in loading allowed from an MS4 to impaired waters of any pollutant for which water body is impaired. EPA presumes that the MS4 is causing and or contributing to an impairment. It is Dover's understanding that EPA is not entitled to make that presumption.

A large portion of the City of Dover discharges storm water to the tidal portion of the Cocheco, Piscataqua, and Bellamy Rivers which are listed as impaired for numerous contaminants including nitrogen. While proposed new development can install best management practices to reduce nitrogen, the BMP's are not 100% efficient and the resultant development would increase nitrogen loading and therefore not be approved. This proposed section is overly restrictive and would cripple the City's ability to grow and generate additional revenue that would support water quality improvements.

Section 2.2.2 Discharge to impaired water without an approved TMDL

The tidal portion of the Cocheco River is impaired for numerous PAH's. Section 2.2.2 would require the City to develop a plan to reduce PAH's from its MS4 under the presumption it is a significant source contributing to the impairment.

It is safe to say that Dover's stormwater runoff has no higher a concentration of PAH's than the City of Rochester's stormwater. However, the tidal portion of the Cocheco River is impaired for PAH's while the Cocheco River down stream of Rochester is not impaired for PAH's. Section 2.2.2 of the proposed permit will require Dover to sample all its' outfalls as the permit assumes that the MS4 outfalls are significant sources while ignoring the fact that a former coal gasification plant that operated for more than 100 years on the banks of the Cocheco River was located near the downtown Dover and has been identified as a hazardous waste site by NHDES Waste Management Bureau.

In 2003 and 2004 a remedial clean up was conducted at the former coal gasification site which included an environmental river dredge in the Cocheco River. This site is obviously the primary source of PAH's in the Cocheco and Piscataqua Rivers. To require all Dover storm drains discharging to the tidal Piscataqua, Cocheco and Bellamy Rivers to sample for PAH's and develop Water

Quality Response Plans (WQRP) to reduce PAH's from stormwater is unnecessary, expensive and un-protective. This one example illustrates the unfair burden that the proposed permit places on the MS4's, which requires them to address water quality issues where the MS4's are clearly not the source of the impairment. EPA and NHDES should determine the primary sources of the impairments, and not assume that the MS4's are the source and require the MS4 to prove they are not the source of the impairment. The tidal rivers are also impaired for DDD, DDE, DDT, PCB, dioxin and other legacy compounds which were discharged years ago. Just sampling for these compounds will be very costly for the MS4. Sampling for the above mentioned legacy compounds including PAH's would be \$880 per sample for each outfall.

Section 2.1.1.c Requirement to Meet Water Quality Standards

This provision states that within 60 days of determining that a discharge causes or contributes to an exceedance of applicable water quality standards, the MS4 must eliminate the source or if it can't be eliminated in 60 days prepare a WQRP.

Dover has 20 years of experience identifying and eliminating illicit discharges from the storm water system. It will be impossible to comply with this provision within 60 days. Most illicit discharges are sewer services erroneously connect to the storm system. Many of the connections are difficult to locate and once found the remediation often requires easements from private parties, utility conflicts and often require considerable time to complete the process. The 60 day requirement is not usually possible and the MS4 should not have to prepare a plan explaining why it hasn't completed the correction and what it intends to do to resolve the problem. Simply make it a requirement of the annual report when a violation is found, what the MS4 has done to resolve the situation, and intends to do during the coming year if not resolved. Preparing a WQRP is a waste of effort and won't get the problem resolved any more quickly.

In the case of nitrogen the NHDES denies that it has adopted a numeric water quality standard despite establishing a threshold value of 0.3 mg/l in stream TN concentration for the tidal rivers which NHDES uses in the NH Consolidated Assessment and Listing Methodology to determine whether a water body is

impaired for nitrogen. **If 0.3 mg/l is not a water quality standard then what is the target value that MS4 communities should use to determine if a discharge is causing or contributing to the nitrogen impairment?**

Considering the fact that Dover and other communities have challenged the analysis that NHDES used in the 2009 Numeric Nutrient Criteria document to establish 0.3 mg/l TN as the in stream threshold based on the premise that elevated nitrogen concentrations have caused excessive phytoplankton growth in the water column which reduces light transparency and is adversely impacting eelgrass in the Great Bay estuary.

Dover and other communities have provided NHDES and EPA with numerous documents and affidavits that show NHDES knew that chlorophyll a levels, the measure of suspended algae particles in the water column, has not increased in 30 years and that reducing nitrogen would not improve transparency sufficiently to meet target transparency levels for eelgrass. (Appendix A Deposition Excerpts at page 1 excerpt 2; page 4 excerpt 11; and page 5 excerpt 12)

Two prominent UNH research professors, Drs. Jones and Langan who have worked in the Great Bay estuary for more than 20 years indicated in a response letter to the Mayors of Portsmouth, Dover, and Rochester, that no research has been conducted in the Great Bay estuary that shows nitrogen is the cause of eelgrass loss anywhere in the estuary. (Exhibit 2 Letter from Mayors, at page 5, #2 and #3; and Exhibit 3 Letter from Jones and Langan, at page 3, #2 and #3)

Dr Steven Chapra of Tufts University a highly regarded expert prepared a review of the 2009 Nutrient Criteria document and concluded that the 2009 NHDES Nutrient Criteria document was fundamentally flawed and produced incorrect results. (Exhibit 1 at page 2 and page 15)

NHDES recently agreed to conduct an independent peer review cooperatively with the cities of Dover, Portsmouth, and Rochester. The peer review of the 2009 Numeric Nutrient Criteria document will be conducted by a panel of independent experts in the fall of 2013 and will consider the methodology, analysis, and conclusions in the 2009 document as well as all the available data and pertinent research not included in the NHDES analysis.

EPA should withdraw the nitrogen requirements from Appendix H of the draft MS 4 permit until such time that an appropriate nitrogen water quality threshold is determined. It should also be noted that the communities have submitted comment to NHDES on the 2012 303(d) listing objecting to the proposed nitrogen impairment listings.

Chloride

The City of Dover recognizes the chloride issue and appreciates EPA's concern. Dover derives its drinking water from groundwater in glacial outwash deposits which are susceptible to chloride contamination, and agrees that road salt used during winter operations on public roads and private properties are the primary source. The balance between public safety and environmental protection are at odds on the issue but have not been ignored by MS4's. Community winter operations are a significant public works budget item. Managers are keenly aware of salt use from a cost perspective as well. Dover and other communities have implemented automated equipment to uniformly lay down salt which adjusts to vehicle speed, and the staff is trained in appropriate use of deicing agents. We agree that a private sector salt use accounting program will have educational value to independent contractors and property owners and have a positive benefit. Dover believes it makes sense for an MS4 to report salt use on an annual basis from year to year, the proposed tracking requirements in the draft permit are overly burdensome and will not produce any benefit. Each winter season and each winter storm is unique. The natural variability in winter weather from storm to storm, and year to year will make the proposed data reported impossible to make any sense of. Storm intensity varies widely by geography as well. As an example a winter storm in Dover frequently has snow in north Dover, sleet and ice in central Dover and all rain on Dover Point, which the storm may be all snow in Rochester.

Winter operations utilize different techniques based on type of precipitation and temperatures. Sunny days and cold nights create melting in the day followed by refreezing at night requiring salting operations even though there was no storm. Dover suggests that the permit reduce the reporting to a simple annual salt use by weight as a way to judge effectiveness over the long run. Staff training, investment in state of the art equipment and educating public regarding appropriate

driving during winter are the most important factors that will produce desired lower salt use.

Illicit Discharge Detection and Elimination

The proposed schedule for completion of an IDDE work is unreasonable. Dover has an extensive and old storm drainage system. Much IDDE work has been completed in Dover over the last 20 years with numerous illicit connections removed. Much of the work was done with NHDES staff long before the first MS4 permit. NHDES chose to work with Dover on their IDDE pilot program because of the cooperative local staff and their commitment to protect local water resources. As a result most of Dover's illicit connections have been identified and removed. Consequently requiring a community like Dover who has already committed significant resources to address the IDDE problem to sample every outfall during the permit is redundant and does not acknowledge the fine work already completed. Communities should be given the flexibility to propose the level of effort needed to appropriately address the IDDE issue in their community. Requiring sampling of every discharge location regardless of past work is not productive or helpful in attaining the water quality improvements by wasting resources.

It is completely unjustified and unworkable that upon discovery of a potential illicit connection that the MS4 is in immediate non-compliance and potentially subject to fines from the moment of discovery. EPA needs to establish a fair and reasonable standard to determine that a MS4 is proceeding expeditiously to resolve a violation.

Dover has been committed and will continue to be committed to detecting and removing illicit connections from its MS4. The city can increase its level of effort in IDDE in the new permit but will need to balance and prioritize the IDDE work with the other new requirements in the permit.

Good Housekeeping

Dover has been cleaning every catch basin once every two years. The results have been incredibly beneficial. Portions of the system that would back up during rain events causing staff to respond to street flooding have virtually disappeared. With

clean sumps and now clean pipes water is flowing and sumps are trapping contaminant bearing sediment and debris.

There is no doubt that water quality discharging the MS4 has improved during the last 10 years of the MS4 permit. Dover does not plan on utilizing the proposed 50% sump capacity threshold to clean basins. It will continue to clean basins every two years because of the beneficial effect City staff has seen. This methodology has proven to be as effective as necessary.

2.2.2

While Dover agrees that an iterative approach is appropriate the draft permit attempt to require analysis, implementation, and reanalysis within the 5 year permit is unnecessary and unworkable. The schedule is too compressed and the proposed tracking and reporting in the 3 phase approach is too extensive.

Dover cannot possibly assess, propose BMP's, implement structural BMP's and collect meaningful data to assess effectiveness of BMP's then propose modifications to plans all in the 5 years of the permit.

The city has nearly completed stormwater improvements in the Berry Brook watershed. Berry Brook is a small urbanized sub watershed of the Cocheco River about 165 acres in size that had 30% impervious cover at the beginning of the project in 2003. By the end of 2013, it is projected that through implementing green infrastructure drainage improvements that Berry Brook will have disconnected enough impervious area to result in a 10% effective impervious area. The cost to do that work is over one million dollars. Water quality monitoring has shown mixed results but the trend appears to be improving. The UNH Stormwater Center, Dover's project partner, expects that it will take time for the improvements in water quality to be measurable. Based on our experience in Berry Brook it is unreasonable to have such short schedules to complete the 3 phase approach as proposed in the draft MS4 permit. It has taken a ten year period to assess, plan and implement improvements in the Beery Brook watershed and the results are inconclusive as to water quality improvements. It would be premature to propose modifications or additional BMP's until the additional water quality data has been collected and analyzed. This is presented in the comments to illustrate the

unreasonableness of the 3 phase approach schedule and reporting within the 5 year permit.

Impairment Listings

Many of the current impairment listings in Dover are based on the data that in some cases are older and in other cases are only one or two samples. A number of listings are based on the data collected during 2006, during years in which precipitation was at the highest levels ever recorded.(see annual precipitation record chart obtained from NOAA database) During this type of weather, bacteria levels spike as a result of non point run off. It would be prudent to sample these segments during more representative rainfall conditions to determine whether the stream is really impaired.

EXAMPLES:

- Indian Brook Bact. 3 Samples 2006, 1 sample in 2007.
- Varney Brook: no new data - City abandoned, leaking sewer force main and obvious major bacteria source and removed one illicit discharge to storm system in the watershed.
- Garrison Brook: no new bacteria data
- Cocheco River 608-04: IDDE removals and recent calculated geometric means of 27 ct/100ml bacteria suggest this segment may no longer be impaired for bacteria
- Bellamy River @ Sawyers Mill: numerous samples and calculated geometric means for bacteria between 2003 and 2007 suggest this segment is not impaired. One sample in September 2002 had high bacteria counts/. A significant cross connection was radiated where a leaky clay sewer main was draining into a near by storm drain line.
- Bellamy 903-09: no new data –a significant multi year Inflow and Infiltration remediation project which included sealing sewer manholes, relining and

replacing leaking sewer mains has been completed which may have improved water quality enough to warrant delisting and should be sampled.

As some of the impairment listed sites relying on the older data remedial activities have taken place which could have improved water quality resulting in potentially delisting the stream segment. The City of Dover proposes that initial efforts focus on segments where available data is sufficient and current to support the impairment listings. For the segments where there is a lack of sufficient and current data, or where remedial work may have improved water quality to delist a water body, Dover suggests that the MS4 communities and NHDES work cooperatively to review the suspect listing by collecting additional sampling data in the proposed permit period before expending resources that will be needed in known problem areas.

Permit Tracking and Reporting Requirements

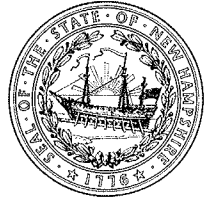
The draft permit has extensive tracking and reporting for nearly every required action many of which are redundant as they will be included as part of annual reporting. Please review these requirements and make an effort to consolidate the reporting within the annual report.

As an example there is a statewide bacteria TMDL for impaired waters in NH and that the proposed MS4 permit has extensive IDDE requirements and an aggressive implementation schedule. A primary source of bacteria in MS4's is from illicit sewer connections which is also a source of nitrogen and other contaminants. The permit requires Dover and other MS4's in the Great Bay watershed to sample for nitrogen as well as other contaminants and to develop plans to reduce the contaminants while at the same time requiring IDDE plans on the same MS4 system both of which require detailed reporting much of which is redundant, burdensome, a waste of resources and non productive.

A simpler integrated approach should allow for each community to identify and track the contaminants of concern in their systems based on impairments as part of their IDDE program.



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

August 15, 2013

Mr. Newton Tedder, US EPA - Region 1
5 Post Office Square, Suite 100
Mail Code—OEP06-4
Boston, MA 02109-3912

Subject: Comments on the February 12, 2013 New Hampshire Draft Small Municipal Separate Storm Sewer System NPDES General Permit

The Department of Environmental Services appreciates your thoughtful development of the most recent draft of the subject permit and your thorough response to comments. We thank you for reaching out to the regulated communities and spending the time and effort to assist us in interpreting the permit requirements. The permit's requirements are complicated and, as written, will need additional clarification. Although many of our questions have been answered, we would like to provide you with the following written comments on the permit requirements to assist us in working together to meet our joint water quality goals.

1. Given that DES programs are resource-constrained and likely to experience additional funding reductions, DES is concerned that the subject permit creates an additional workload for DES programs that is non-productive. For example, DES has an effective program to deal with antidegradation, but the very specific requirements in Section 2.1.2.b will likely result in DES needing to unnecessarily review every change in land use, regardless of how small (e.g., paving of a driveway), in every MS4 community. Section 2.1.2.b could simply read: "b. Permittees must comply with the provisions of the NH antidegradation provisions", allowing DES the flexibility to implement programs in the most effective way possible.
2. Section 2.2 is arguably the section of the draft permit that is most open-ended as far as community expense is concerned, particularly with the large number of impaired water listings and TMDLs in New Hampshire. Restoring impaired waters is as complicated and time-consuming as it is important, and TMDLs provide a valuable tool in their restoration. However, although MS4 communities can do their part, they cannot do it alone. Watershed-wide participation in integrated adaptive management approaches are necessary if water quality objectives are to be met. For the reasons below, DES suggests that EPA delay the effective date of Section 2.2 of the Permit for as long as 3 years after the date of signature and final release to the public. In addition, DES supports a longer time frame for the communities in New Hampshire to achieve compliance with the Permit. DES is committed to working with EPA and the New Hampshire legislature to modify administrative rules to enable the use of compliance schedules in general permits to allow for longer timeframes to meet the more challenging requirements of the permit. The permit should assure that the permittees take action to solve

DES Web site: www.des.nh.gov

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095

Telephone: (603) 271-3503 • Fax: (603) 271-2867 • TDD Access: Relay NH 1-800-735-2964

confirmed water quality problems but not put them in a position of immediate non-compliance, with no ability to comply within the permit term.

- a. As shown in the attached spreadsheet, prepared by DES to better understand the draft permit, most of the requirements are compressed into the first few years of the permit. Almost every requirement in the permit requires action within the first 6 – 12 months of the permit becoming effective. DES understands the importance of the new requirements in this draft. However, we also recognize the complexity, costs and practical realities associated with immediate implementation in the many relatively small communities in New Hampshire.
 - b. As discussed above, because of the large number of water bodies in New Hampshire with listings and TMDLs, including some for which additional and updated data are needed, the new requirements in Section 2.2 are magnified for the MS4 communities in New Hampshire. In the draft permit, DES would like to see the addition of a data verification step prior to the creation of water quality response plans or investments in more costly best management practices (BMPs). This is especially true for impaired waters for which there are few data, that have not been sampled in many years, or for which better sampling techniques are now available.
 - c. Further, for TMDL requirements and Water Quality Response Plans (WQRPs), it should be clear that the firm deadlines to conduct investigations and begin installing BMPs are only the first step in the “adaptive management” and “reasonable further progress” processes that may require several years beyond the permit term to complete. It would be helpful in moving this critical program forward if the Permit clarified if, and how, MS4 communities can stay in compliance with Permit requirements during the time the adaptive management approach to meeting water quality standards is being implemented.
 - d. Given the expansive nature of the permit, the number of listings and TMDLs in New Hampshire, other NPDES issues within MS4 communities, and resource issues, triage should be an important concept in the final permit. Communities should, with input from state and federal agencies, be able to prioritize water bodies for restoration and protection. While all surface waters are important, some characteristics, such as public health, recovery potential, and relative severity of impact, make certain waters higher priorities. It seems unusual that the Permit requirements for listed water bodies without TMDLs are more arduous than for those where TMDLs have already been developed. A prioritization step, perhaps even on a watershed basis, should be an important part of the implementation of section 2.2 and perhaps other sections requiring expensive monitoring or investigation. Ultimately, we look forward to discussing integrated permitting options that would allow all of us to focus on projects with the highest water quality benefit, particularly in watersheds with CSO discharges.
3. The requirements related to compliance with TMDLs are confusing. Permittees need to know exactly what they are responsible for to be in compliance. It should be made clear that permittees are only responsible for pollutants derived from human activities conducted within their own MS4 boundaries. For example, if CSOs in an upstream community are listed as the cause of

impairment in the 303(d) list, and a downstream community that does not have CSOs discharges to the same water body, then the downstream community should not need to take actions other than the 6 minimum control measures described in section 2.3. Further, it should be made clear that the only TMDL that requires "relative percent reductions" is that for phosphorus, and that for the other TMDLs, there are no specific allocations that apply at the outfalls. With regard to the phosphorus TMDLs, the permit seems to focus TMDL compliance on achieving phosphorus reduction targets. As stated in the implementation sections of the TMDLs, compliance with the TMDL will be based on compliance with water quality criteria and/or thresholds for the response parameters (i.e., dissolved oxygen, chlorophyll-a and cyanobacteria) and not on meeting the phosphorus reduction targets. In addition, the TMDL states that it is anticipated that the phosphorus reductions will be conducted in phases. To be consistent with how the phosphorus TMDLs were intended to be implemented, and to avoid spending public funds on BMPs that may not be necessary to achieve water quality standards, the permit should promote, and allow time for, an adaptive implementation approach consisting of phased BMP implementation followed by ambient monitoring after each phase, to confirm if additional phosphorus control measures are warranted.

4. It appears that Water Quality Response Plans (WQRPs) are open ended. There is a need for a Phase IV for WQRPs that defines when they can be closed out or suspended. It should be made clear that, except for periodic follow-up monitoring as part of the IDDE program, the water quality response plans can be suspended when the pollutants contributing to impairments are no longer present in significant or measurable quantities in an outfall. Further, if the listed impairments are removed from the 303(d) list due to ongoing monitoring of the applicable assessment unit by DES or the permittee, then the WQRPs can be closed out.

Thank you for giving us the opportunity to work with you on this critical issue. It is our hope that the new MS4 permit will serve to move all parties toward our mutual goal of meeting water quality objectives in the most effective and efficient ways possible. Please feel free to contact Vicki Quiram, Harry Stewart, Ted Diers or me if you have any questions.

Respectfully,



Thomas S. Burack
Commissioner

cc: Vicki Quiram, Assistant Commissioner, Dept. of Environmental Services
Harry Stewart, Director, Water Division, Dept. of Environmental Services
Ted Diers, Administrator, Watershed Management Bureau, Water Division, Dept. of Environmental Services

Attachment



Town of Goffstown

BOARD OF SELECTMEN

August 13, 2013

USEPA
5 Post Office Square – Suite 100
Mail Code-OEP06-1
Boston, MA 02109-3912
ATTN: Newton Tedder

RE: Comments to the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

On behalf of the community of Goffstown, please accept the following comments on the proposed 2013 Draft MS4 NPDES Permit issued on February 12, 2013. The Town would like to acknowledge its sincere appreciation for the granting of two extensions. The extensions gave the Town and other towns in the region an opportunity to adequately review the proposed language contained in the permit and consider the ramifications of the permit changes.

The Town would also like to formally acknowledge the staff at NHDES who have patiently met with and worked with the MS4 Communities to understand the permit implications and find opportunities for the various levels of government to work cooperatively to serve our citizens in the most cost-effective and efficient way in complying with the Clean Water Act requirements. It would be the Town's suggestion and hope that once the comment period closes and EPA begins the task of responding to the comments, that EPA join in these very fruitful inter-governmental implementation discussions.

The Town is also part of a MS4 Coalition. Comments will be submitted on behalf of the Town from Sheehan, Phinney, Bass & Green, PA.

In regards to general comments the Town offers the following:

Section 1.9.2 dealing with Historic Properties is unchanged from the 2003 permit; however, what has changed is the mapping and reporting requirements. The 2003 permit focused on outfalls; in the new permit we will be documenting all drainage structures within our MS4 system. This potentially opens the Town up to onerous Section 106 reviews for each and every catch basin, detention pond and drainage swale that we need to work on. To avoid lengthy Section 106 reviews the EPA/NHDES should work with the State Historic Preservation Officer (SHPO) to develop a programmatic agreement regarding historic properties and MS4 related activities. This would be a great tool for implementing approaches that may not follow the normal Section 106 process. This can be done to streamline and enhance historic preservation and project delivery efforts.

Section 2.1.1.c establishes the requirement to remedy any conditions causing an exceedance of water quality standards within 60 days of a determination that our discharge is causing an exceedance. The section specifically spells out that the compliance clock begins to accrue immediately and continues until the source is remedied and that there is not a grace period. This, coupled with the fact that we have to conduct dry weather sampling of all of our outfalls at the same time will put the Town into almost immediate non-compliance. To help deter the stringent requirements of the water quality exceedance, the Town is asking for time to evaluate the water quality data that NHDES has used to determine the 303 (d) list. Within the first 3 years of the permit we could prioritize our outfalls based on the use of the receiving water value (as determined by NHDES) and risk to the public. We can then implement a rigorous sampling program of the high value/high priority water bodies and develop plans to remedy any sources of contaminants specifically from our MS4. Section 2.1.2 prohibits any new or increased discharges (including pollutant loadings). Does this mean that the Town needs to notify NHDES every time we issue a driveway permit or add a catch basin to our drainage system? Do we also have to provide a waste load analysis for every driveway? This provision seems administratively burdensome and the Town doubts that NHDES has the resources to respond to such a requirement.

The Table F-1 dealing with the Statewide Bacteria TMDL appears to have the column headings for Single Sample and Geometric Mean reversed. Also, the Statewide Bacteria TMDL appears to be based on outdated methodology and should be revised to reflect current EPA guidance. We also question why the beach bacteria standard would be applied year round when swimming in NH is a very limited season. It would make much more sense to have a seasonal swimming limit.

The reductions to meet the TMDL in Table F-1 are based on the highest measured sample ever taken in a water body and are not indicative of the overall water quality of the

receiving water or the average levels expected from the MS4 discharges. It would be more prudent to allow for more sampling of each water body and take an overall average of each measured sample. The results will give a better overall picture of the water quality for each water body. As mentioned above, this can be done during the first 3 years to create a more rigorous and accurate storm water program.

Goffstown estimates that hundreds of thousands of dollars will be spent in sampling and BMP costs dealing with the bacteria TMDL in the Piscataquog River. A review of the data for the past 10 years of Glen Lake (highest priority due to the swimming beach) reveals that there have only been 5 times that we have exceeded 100 #/100ml. The highest value is 200. It seems a bit inefficient to have the Goffstown taxpayer paying hundreds of thousands of dollars to try to control bacteria in the river when there are still direct sewer overflows during heavy rain storms just a few miles downstream. We need to find a mechanism to channel the money to have the greatest impact on cleaning up the problems in our watersheds.

Section 2.2.2 establishes an iterative approach to addressing non-compliant discharges over the course of the 5 year permit. That timeframe is not practical given the far reaching extent of the water quality issues in southern NH. The legal standard of maximum extent possible, which, was in the first permit did not require immediate compliance with water quality standards. This permit deviates from that approach leading to the immediate non-compliance issue. We anticipate that it will take time to prioritize; plan, permit, fund and construct many of the structural BMP's that will be required. We propose allowing the Town to work with NHDES during the first 3 years of the permit to prioritize our receiving waters and develop a plan to concentrate on the high value waters first.

Many of the water quality issues identified for Goffstown, such as, the bacteria in Harry Brook (all samples taken within months of the 2006 flood) and the chloride in Catamount Brook (all samples immediately downstream of a pig farm) are based on very limited data. Before plans are developed for these areas we need to conduct more extensive sampling and study focused on these areas.

Section 2.2.2.a.ii.b.3 states that all planned BMP's shall be fully implemented within three years of the permit effective date. This is not feasible given that almost all of Goffstown's outfalls discharge to impaired waterways and we have to deal with all of them at once. The Town requests the ability to prioritize our outfalls to concentrate on the highest priority outfalls (ie. discharges near the Glen Lake beach) first. Though at this time we do not have the data to say this for certain, we suspect that some of the BMP's will take longer than 5 years to implement.

Section 2.2.2 lays out a schedule requiring completion of all 3 phases of compliance with the permit within the 5 year term of the permit. At an EBC Meeting in Manchester, NH on July 10th Administrator Curt Spalding admitted to the audience that EPA recognized that storm water compliance needed to be a long-term solution.

On Page 27 of 60 under 2.3.4.2.b there is reference to a 30 day time limit to remedy and illicit discharge. This is inconsistent with the 60 day limit mentioned earlier.

In response to a comment received from CLF on the 2008 draft permit EPA decided to strike the language in Section 2.1.1.a(ii) "In the absence of information suggesting otherwise, discharges will be presumed to meet the applicable water quality standards if the permittee fully satisfies the provisions of this permit." EPA's rationale in doing this was that the language has no meaningful purpose in the permit. EPA then added the language in section 2.2.2 that says "EPA presumes that MS4 discharges are potential contributors to the impairments due to nutrients (phosphorus or nitrogen), bacteria, suspended solids, metals, or oil and grease." This language represents a 180 degree shift in EPA's approach to MS4 compliance and creates an untenable position for a community to meet; especially given the stiff penalties established in the clean water act. The Town respectfully disagrees with EPA's assessment that this language has no meaningful purpose. If this approach is required for storm water by the Clean Water Act then it is obvious that the CWA is not appropriate to manage storm water which is discharging from municipal systems that are hundreds of years old.

In EPA's response to comments to the 2008 draft permit EPA states "Section 301 of the CWA prohibits discharge of a pollutant without, or contrary to the requirements of the permit that authorize its discharge, and failure to meet those requirements is addressed through compliance and enforcement actions within the scope of the permit, not through the denial of authorization. Indeed, since most of the MS4s potentially subject to authorization under this permit are already discharging storm water, the purposes of the CWA would not be well-served by excluding permittees from all the more stringent requirements of the reissued permit until such time as they resolve every specific water quality issue." (page 29 of the Fact Sheet) This statement recognizes that MS4 systems predate the CWA and this MS4 Permit, however, the language in Section 2.1.1 states "If at any time the permittee determines or EPA or the state agency determines that a discharge causes or contributes to an exceedance of applicable water quality standard, the permittee shall within 60 days of becoming aware of the situation eliminate the conditions causing or contributing to an exceedance...". This again seems to be a contrary approach taken in this permit as compared to the 2003 Permit.

This permit represents an increase in administrative and technical effort that would be impossible for any municipality to absorb. It is not necessarily the permit conditions themselves but rather the sheer volume of the impaired water bodies. According to EPA's website; New Hampshire ranks 7th in the nation in the number of impaired water bodies. New Hampshire also ranks 2nd in the nation in the number of TMDL's with over 6,000. The state response to this is that most of those TMDL's (approx. 5,000) are for mercury, however, even if the mercury TMDL is taken off the list it still leaves 882 TMDL's which would still have NH in the top 15 states by number of TMDL's. Most of Goffstown's outfalls discharge to impaired water bodies. This coupled with the age of Goffstown's sewer system limits our ability to prioritize our outfalls. The town cannot afford to tackle all of the outfalls simultaneously and meet the 5 year deadline spelled out in this draft permit.

Another concern is that mercury, though it is clearly established is the result of air disposition not storm water runoff is still a concern based on the increased requirements to manage sediment removed from the roadways that could have mercury contaminants present.

In Appendix H, Catamount Brook in Goffstown is listed with chloride impairment. The limited amount of chloride data on Catamount Brook is taken in close proximity to a pig farm located in town. This section of town is comparatively rural so the entire listing is suspect. There are many time consuming requirements that would need to be implemented for chloride management in town based on this one limited sample. The town would need time to work with NHDES to establish that this impairment is even valid or that the MS4 is contributing to it. As stated in the Appendix the goal is to substantially reduce chloride discharges. The majority of chloride discharges are from salt as it is applied to roadways in treatment of icy and snowy conditions. The Town has a primary duty to public safety and has to carefully weigh the salt reduction benefits to the environment with the Town's legal exposure to provide for safe travel.

Also, the Town has asked its Town Attorney to review the assertion that RSA 31:39 gives towns and cities the necessary authority to regulate chloride use on private properties with approved site plans. The Town respectfully disagrees with that assertion and feels that adequate time needs to be built into the schedule to allow the legislature to grant the necessary authority to affected communities. The Town also asserts that town by town compliance with chloride use will be disastrous to NH's business community. A large organization such as Hannaford Supermarket could potentially have to have its contractors comply with 13 different chloride management ordinances. This would be accomplished much more efficiently at the state level.

Overall, the IDDE Screening requirements are quite well done, however, there is an extensive amount of work required to inventory the system in the first year. It would be beneficial to allow the inventory to be completed within the first 3 years of the permit. This would better coincide with what was requested above for prioritizing water bodies.

Holding the Town immediately and legally responsible for the illegal acts of others who have illicit discharges into our system is not required in the storm water regulations. Given the statutory penalties required by the CWA as they compare to the statutory penalties that a NH community can impose on a violator; this creates a very unfavorable position for a local government to be placed in by this permit.

Section 2.3.7.d.iii requires sweeping of uncurbed streets. This is not practical as the efficiency of a mechanical sweeper is greatly reduced in the absence of curbing. Streets with no curbs are affected by the same factors as curbed streets, but with no curb the debris is dispersed onto areas adjacent to paved surfaces. Uncurbed streets are, in effect, self-cleaning as most of the roadway discharge is absorbed into the ground below the ditch lines. Of our 132 miles of road in town only 8 miles is curb and gutter. We currently sweep the curb and gutter sections twice per year at a cost of \$9,500 per year. If the Town is required to sweep all 132 miles of road the approximate cost would exceed \$70,000 per year.

It appears the EPA has accepted and published the NHDES 2012 - 303 (d) list. Goffstown would like to point out a few issues in that list in anticipation of it being incorporated into the future permit. The 303 (d) list shows an impairment for lead in the Black Brook. This is clearly (and appropriately referenced in the 303 (d) list) as having a source of Inappropriate Waste and Contaminated groundwater. This has nothing to do with Goffstown's MS4 but rather a privately owned shooting range in Hooksett. Also, Catamount Brook shows a chloride impairment. In the sources it lists Shopping Districts, Urbanized High Density and parking lot runoff. This is a very rural area of town with no commercial/industrial activity. There is only the local pig farm. This area needs to be clearly delineated to define the sources of the contaminants. In recent sampling done by Town forces the chloride and specific conductance levels are well below action levels. This should not be listed as an MS4 issue. They also have Catamount Brook listed as a primary contact recreation which it is not.

The Final – 2012 – 303 (d) list includes an impairment for Total Phosphorus and Chlorophyll-a for Kelly Falls Pond (aka Namaske Lake). Nutrient impairments are such a complicated and expensive issue to deal with that Goffstown feels this should not be

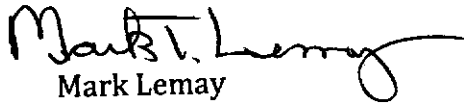
included in the permit until a TMDL is completed and the sources of the contaminants are clearly identified.

Again we suggest that once the comment period has closed the EPA should reach out to all MS4 communities in an effort work cooperatively to develop the most efficient/effective methods to comply with the permit objectives. The Town encourages this effort to help build a better understanding between the EPA and local communities. This should be done while the EPA responds to comments which can aid in revising the permit to ensure that the local communities receive a more comprehensive permit which preserves the environment and uses limited local resources' wisely.

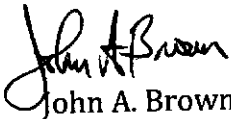
Sincerely,



Collis Adams
Chairman



Mark Lemay
Vice Chairman



John A. Brown
Selectman



Nick Campasano
Selectman



Philip A. D'Avanza
Selectman

Cc: Vicki Quiram, Assistant Commissioner, NHDES
Jeff Andrews, NHDES

Kevin A. Sheppard, P.E.
Public Works Director

Timothy J. Clougherty
Deputy Public Works Director

Frederick J. McNeill, P.E.
Chief Engineer



Commission
Raymond Hebert
Harold Sullivan
Rick Rothwell
Bill Skouteris
Philip Hebert

CITY OF MANCHESTER
Highway Department
Environmental Protection Division

Received
8/15/2013

August 15, 2013

Mr. Newton Tedder
USEPA – Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Subject: **City of Manchester**
Review Comments on
2013 Draft New Hampshire Small MS4 General Permit

Dear Mr. Tedder:

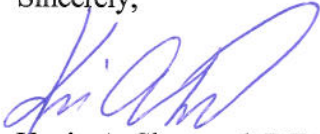
The City of Manchester (City) is pleased to submit comments on the 2013 Draft New Hampshire Small MS4 General Permit. I requested my staff to review the permit requirements and to attend and participate in the public hearing that was held on March 14, 2013 in Portsmouth, NH. Once the complexity and costs of the draft permit became evident the City expanded our permit review efforts. Our staff met regularly with the New Hampshire Department of Environmental Services (NHDES) over the past few months to discuss key permit requirements. In addition, a regional stormwater coalition was formed and legal council was retained to assist with our draft permit comments. Lastly, we consulted with several engineering firms for their feedback on the draft permit requirements.

Our comments are extensive and detailed. We present general comments that pertain to the overall permit and specific comments citing permits clauses and requirements. To support our comments we have conducted preliminary engineering assessments to determine general treatment needs and costs. In addition, we have appended to these comments recent engineering studies to support our preliminary engineering and review comments. Lastly, we have also submitted comments under separate cover prepared by our legal council Sheehen Phinney Bass & Green, PA on behalf of the New Hampshire Stormwater Coalition. Our comments are presented in the following format:

- I. General Comments
- II. Specific Review Comments
- III. Preliminary Engineering Comments
- IV. Appendices (1 through 15)

The draft MS4 permit has significant and costly long-term impacts to the City of Manchester. We look forward to working with EPA in developing this permit as a useful tool to continue our partnership of environmental stewardship in a practical, reasonable, and cost effective manner.

Sincerely,



Kevin A. Sheppard, P.E.
Public Works Director

Cc: Mayor Theodore L. Gatsas
Mr. Jeff Andrews, P.E. – NHDES
Mr. Tim Clougherty
Mr. Fred McNeill

I. General Comments

1. Insufficient Implementation Schedule

The City has a well established history of stormwater environmental stewardship. We have had an Urban Ponds program for over a decade and have demonstrated water quality improvements through the implementation of several structural and non-structural stormwater best management practices (BMPs). Based on our experience, to implement the requirements of this draft permit in five years is unrealistic and cost prohibitive. The requirements of this permit more realistically will require about 20 years of sustained work based upon our 13 years experience with our formal Urban Ponds Program. Within our comments we recommend that this be extended to a 20 year permit with the first five years focusing on data verification.

2. Data Verification Required

A significant portion of the water quality data that this permit is being based is dated, in some cases there are insufficient data points, and the sampling techniques used are unknown. Considering this program will cost hundreds of millions to implement, it is imperative that sound and accurate science be used to determine the appropriate mitigation measures. We have partnered with DES in sampling programs in the past using clean sampling techniques governed by a formal QA/QC program. We propose that we continue this sampling partnership and focus the first five years of the permit on data verification. This will help ensure that appropriate, cost effective, and successful mitigation measures are implemented.

3. The City will be in Intermediate Noncompliance

If this permit is implemented; because of wording "*Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water.*" the City, because of its combined sewer overflow (CSO) system, will be in non-compliance the day the permit is issued. This will put the City at risk to fines and regulatory compliance actions. We recommend the permit be modified in several areas to allow communities to work towards compliance in a practical, realistic, and cost effective manner.

4. Interjurisdictional Issues and Responsibilities

This permits deals with watershed based issues. However, the permit, and its compliance responsibilities, are being issued to individual communities. Therefore, the community where the water bodies are located will be responsible for compliance despite not controlling the flows from neighboring communities that contribute to water quality impairments. There are ponds within the City that receive 70% of their flows from communities outside of Manchester. In addition, the New Hampshire Department of Transportation (NHDOT)'s highways are significant contributors to the City's pond water quality impairments. There is also atmospheric deposition which is a national problem and contributes to the City's water impairments. This permit should be

restructured to address impairments on a watershed basis with all stakeholders contributing in a fair and equal table manner as opposed to individual communities being forced to assume the full implementation and financial responsibility.

5. Cost Prohibitive/Unfunded Mandate

The cost of the City's full compliance with this five-year permit is estimated to be over \$700 million. For comparison, the City's annual operating budget is about \$300 million. With so many competing interests for the City's limited funding, compliance with this draft permit is cost prohibitive.

This permit is an unfunded mandate as defined in Article 28-a of the State's Constitution, Bill of Rights, adopted on November 28, 1984 states, *"The state shall not mandate or assign any new expanded or modified programs or responsibilities to any political subdivision in such a way as to necessitate additional local expenditures by the political subdivision unless such programs or responsibilities are fully funded by the state or unless such programs or responsibilities are approved for funding by a vote of the local legislative body of the political subdivision."*

Sewer and water are specifically included in Section 541-A: 25 Unfunded State Mandates II of the Administrative Procedures Act State, *"Such programs also include, but are not limited to, functions such as police, fire and rescue, roads and bridges, solid waste, sewer and water, and construction and maintenance of buildings and other municipal facilities or other facilities or functions undertaken by a political subdivision."*

6. Second Public Review of the Draft Permit

Due to the significant comments presented by the City of Manchester and other members of our stormwater coalition, we request a second public review of this draft permit. When it was first issued in 2008 several communities submitted comments and it took EPA five-years to address these comments and re-issue the permit. The comments submitted in 2013 will be even more extensive and detailed. Considering the complexity of the permit and the volume of comments EPA will receive, it will benefit all stakeholders if the permit is issued for public comment again. Considering the City is facing up to \$700 million in compliance cost, it is imperative that we all work together in developing a practical, reasonable, and cost effective permit

II. Specific Review Comments

1.10 Stormwater Management Program (SWMP)

Under c. *"The permittee is encouraged to maintain an adequate funding source for the implementation of this program. Adequate funding means that a consistent source of revenue exists for the program."*

The concern that we have along with the other communities that were represented at the public hearing is with the costs associated with this program. In this economic environment with budget cuts and lost revenues the communities that are regulated under this permit including

Manchester would have a difficult time ensuring these funds will be available and therefore complying with this section based on the current permit requirements and associated costs. The costs to comply with this permit as outlined with these comments would cost in excess of \$700 millions of dollars. Currently stormwater is funded under the City's general fund and is therefore subject to budget cuts due to the budget constraints that we all are facing. The City of Manchester has been funding the current program, but we do not have the funds needed to implement the Stormwater Management Plan (SWMP) associated with the extensive and burdensome requirements of this permit.

1.10.2 Contents of the Stormwater Management Program

"Listing of all interconnected MS4s and other separate storm sewer systems receiving a discharge from the permitted MS4..."

The concern that we have is that MS4s are interconnected with other MS4s and other non-permitted separate storm sewer systems. This makes it difficult to administer certain requirements of this permit as a water body can be in one community and receive discharges from other communities and entities that make it difficult to have them share the costs of their share of the loadings.

2.1.1 Requirement to Meet Water Quality Standards

"Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water."

Compliance with this requirement can be challenging for any community, because according to the TMDLs and impairments communities are already not in compliance with water quality standards and will be in non-compliance with this permit once it becomes effective. The community will then need to prove through sampling requirements and BMP implementation that they are in compliance. Unfortunately some of the target goals are not realistically attainable and will keep the community from being compliant with this permit over its term.

2.1.2 New or Increased Discharges

"There shall be no new or increased discharges from the MS4 to impaired waters unless the permittee demonstrates that there is no net increase in loading from the MS4 to the impaired water of the pollutant(s) for which the water body is impaired."

The City of Manchester is a Combined Sewer Overflow (CSO) community and is required to separate our sanitary and storm sewers. Through this separation program, stormwater is being directed to water bodies such as the Merrimack River, combine this with the change in climate and it is not feasible to not increase discharges to impaired water bodies. In this case compliance with one EPA requirement will cause non-compliance with this draft permit.

2.2.1 Discharges Subject to an Approved TMDL

In the State of New Hampshire there are approved TMDLs for chlorides, bacteria, and phosphorous. For bacteria there is an approved statewide Bacteria TMDL and the Beach Bacteria TMDL. The City of Manchester is included in this TMDL. The Merrimack River,

Cohas Brook, and Crystal Lake Beach are under this TMDL. Some of the requirements including needing to prepare a Water Quality Response Plan (WQRP) and proposed BMPs to meet the load reductions. The load reductions range from 56% to 94%. As stated earlier, the City will not be able to meet compliance with this requirement because we still are a CSO community (\$165 million Phase II separation program ongoing) and the separation schedule is beyond the five year term of this permit. It is also important to note that sources of bacteria include wildlife and waterfowl that we cannot control. The cost alone to prepare a WQRP is approximately \$65,000 per plan per water body to study sources and develop BMPs, this does not include actual implementation of the BMPs.

There are ten communities including City of Manchester that must comply with Approved Phosphorous TMDLs. We have four water bodies that have a TMDL. These include Dorrs Pond, Nutt Pond, Pine Island Pond, and Stevens Pond. To comply with this TMDL we must develop Phosphorous Control Plans (PCP) for each pond and implement the BMPs within five years. The BMPs include both structural and non-structural BMPs. The load reductions range from 50 to 73% based on a limit of 12 ug/l of Total Phosphorous (TP). The cost for the PCPs are \$60,000 per plan per water body to study the sources of the phosphorous and develop BMPs, this does not include actual implementation of the BMPs.

The TMDLs are based on a Waste Load Allocation (WLA) + Load Allocation (LA) + Margin of Safety (MOS). The MOS is 20%. $WLA + LA + MOS = 12 \text{ ug/l of TP}$. These TMDLs were based on models and did take into account recent sampling showing current reduction trends.

The City has been sampling our urban ponds through the NHDES Volunteer Lake Assessment Program (VLAP). Sampling is done during the summer months from the hours of 10 AM to 2 PM when the sunlight is the strongest to test for many parameters including TP and Chlorophyll-A. We have seen reductions in TP that was not accounted for in the required reductions of 50 to 73%.

In the Nutt Pond Watershed the City of Manchester has completed many projects to remove both sediment and TP from reaching the pond. This work was done through both City of Manchester and EPA 319 Grant funds. A Watershed Restoration Plan (WRP) was developed and approved by the NHDES. In that plan the target goal for TP was 15 ug/l. in 2010 and in 2012 the average sampling result for TP was 15 ug/l. Based on the WRP we achieved our goal of reducing TP to the target goal of 15 ug/l. Please note that the watershed for this pond is 60% impervious and we spent over \$1.1 Million to achieve this goal and we are going to spend approximately another \$350,000 to install to construct a gravel wetland, bioretention cell, tree box filters, and a new boat ramp to further reduce our loadings to the pond. These costs do not include any of the annual operation and maintenance costs associated with this work. Even though we will have spent approximately \$1.5 Million we do not feel that the limit of 12 ug/l is attainable and that the EPA needs to work with the NHDES to revise the Phosphorous TMDLs to include actual sampling results and develop a realistic timeframe to study the ponds, develop PCPs, select and implement BMPs. A five year timeframe is not realistic to do these activities.

The other issue for these TMDLs is that even if a water body is located in a community, due to the fact of interconnected MS4s that community might not be the only one discharging to that water body. An example is Dorrs Pond that is located in the northern part of the city. Dorrs Pond receives from the community of Hooksett and from the NH Department of Transportation (NHDOT). To help distribute the costs evenly a study would need to be done to determine the

contribution each discharger has to Dorrs Pond and an intergovernmental agreement would need to be drafted to help distribute the allocation of costs associated with the BMPs. Because of these and other concerns this requirement should be revised to only include the development of the plans and the associated studies to develop the plans. Implementation of BMPs can be during the next permit period. This permit requirement is realistically a twenty year requirement that can be developed in phases during subsequent permit cycles.

2.2.2 Discharge to Impaired Water without an Approved TMDL

Communities that discharge to an impaired water body other than a chloride impaired water body must take a three phased approach. The phases are as follows:

- Phase 1: Preliminary evaluation and source identification. Then develop a WQRP to assess potential sources, identify additional or modified BMPs beyond what is identified in the Stormwater Management Plan (SWMP). This needs to be completed one year from the effective date of the permit.
- Phase 2: Implementation of BMPs and finalization of the source identification and assessment. This needs to be completed three years from the effective date of the permit.
- Phase 3: Assessment BMPs that were implemented under Phase 2 to evaluate if the BMPs are sufficient to reduce the pollutants for the impaired water bodies.

Based on review of the phases it appears that the communities are being tasked with essentially the same requirements as are associated with a TMDL, except that they also need to do some of the studies that are used to develop a TMDL that is normally done by the NHDES. It appears that due to budget constraints the EPA is requiring the communities to do the work of the NHDES under this requirement. The City of Manchester has approximately 16 water bodies that would need WQRPs developed under this requirement at a cost of \$65,000 per plan per water body to study sources and develop BMPs, this does not include actual implementation of the BMPs.

The five year permit term is not enough time to implement this requirement as currently outlined. It also puts all the burden of the study on the communities and does not place any burden on the EPA or the NHDES. We ask that the EPA takes another look at this requirement and delays its implementation until the NHDES revises the 303 (d) list for impaired waters. The 303 (d) list needs to reflect updated sampling in accordance with a formal QA/QC program. We offer to work with the NHDES to ensure that the sampling is updated and the impairments to the water bodies reflect what are the current conditions observed and not based on old data. We ask that during the first five year permit term that the monitoring is performed and that during the following permit cycles plans are developed in conjunction with the NHDES to work towards minimizing the impairments. This permit requirement is realistically a twenty year requirement that can be developed in phases during subsequent permit cycles.

In regards to this requirement it is also the same as the TMDL (2.2.1) in the fact that loads need to be accounted for from their entities that discharge to the water body such as other Traditional and Non-Traditional MS4s.

2.2.3 Discharge to a Chloride Impaired Water in New Hampshire

Communities that discharge to a chloride impaired water body that does not have a TMDL must develop a Salt Reduction Plan within three years of the effective date of the permit. There are 13 communities with 27 water bodies that fall under this requirement. In the City Manchester the following water bodies fall under this requirement: Baker Brook, Dorrs Pond, Nutt Pond, Ray Brook, and Stevens Pond.

The City has water bodies that receive dischargers from other Traditional and Non-Traditional MS4s. The best example is Stevens Pond that is located under Interstate 93 which is owned by the NHDOT. This pond receives discharges from the City and the NHDOT road networks. In this area the NHDOT road network is much more extensive than Manchester's is and contributes a much higher chloride load to this pond, therefore they should share in the cost of reducing the chloride load.

The community must also identify parking lots that are 10 spaces or greater that discharge to the MS4 and develop requirements that make sure that the salt applicators are trained and certified and that they provide the community with annual salt usage. Salt applicators can change from one season to another based on their price to treat the parking lots. In New Hampshire the Green SnoPro Certification Program was developed to help train and certify applicators across the state. These salt applicators also track their salt usage. The EPA should consider that this requirement is met through this state program and not pass this requirement down to the individual community.

Requirements for new and redeveloped properties must be established that will minimize salt usage, track salt usage, and report to the community their annual salt usage. This requirement can also be met through the Green SnoPro Certification Program.

2.3 Requirements to Reduce Pollutants to the Maximum Extent Practicable (MEP)

"The permittee shall reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), as set forth in parts 2.3.2 through 2.3.7."

The EPA needs to further define what the MEP is. What one community defines as MEP might not be the same as the EPA or as another group may define MEP. This can leave a community open to fines and litigation.

2.3.2 Public Education and Outreach

"The ultimate objective of a public education program is to increase knowledge and change behavior so that pollutants in stormwater are reduced."

The City of Manchester supports the public education element of the permit. We need to attempt to educate the public to be more environmentally conscious. The concern is that how a community can measure a change in behavior. The EPA needs to develop tools to help the communities' measure a change in behavior and the EPA also needs to define what they see as a change in behavior.

The EPA and the NHDES should also work together to develop public service messages and give guidance to the municipalities on messages for the different audiences.

As written, the MS4 permit requires each community individually to conduct public education and outreach activities. This is one area in which groups of communities could work together to develop public education and outreach materials since the messages would be very similar or would overlap and it would be far more cost-effective if groups of communities could share resources to help reduce the overall burden on any one community. It will take time to develop targeted and appropriate education and outreach materials and it will take time to form the multi-community partnerships and groups needed to accomplish this.

In terms of measuring outcomes and results to measure effectiveness, it is first necessary to define the criteria that could be used to make such an assessment. Then it would be necessary to establish some type of baseline condition before results could be monitored and assessed. This is simply not practical within a 5-year time frame.

2.3.4 Illicit Discharge Detection and Elimination (IDDE) Program

"The permittee shall implement an IDDE program to systematically find and eliminate sources of non-stormwater from the separate storm sewer system and to implement procedures to prevent illicit connections and discharges."

"Illicit discharges to the MS4 are prohibited, and any such discharge violates this permit and remains a violation until eliminated."

The communities that are regulated under this MS4 permit recognize the importance of correcting illicit discharges. Manchester has implemented an aggressive illicit discharge protocol after the issuance of the 2003 Stormwater Permit in which the City reports findings annually in the stormwater reports. This illicit discharge program under the current permit does screening of areas through testing for E-Coli. Manchester has found that almost all of the discovered illicit discharges were not caused by the municipality, but by residents within the community. The municipality should not be held culpable for the actions of private citizens, but should take every step to assure these discharges are eliminated once discovered..

In this permit the EPA is trying to regulate Sanitary Sewer Overflows (SSOs). These are already regulated through our NPDES Wastewater Discharge Permits and through our Capacity Management Operation and Maintenance (CMOM) Programs. This is considered a duplication of efforts and should not be regulated under this program.

"The permittee shall complete the Catchment Investigation Procedure in a minimum of 80% of the MS4 area served by Problem Catchments within 3 years of the permit effective date and 100% of Problem Catchments within five years of the permit effective date."

"Samples shall be analyzed at a minimum for ammonia, chlorine, conductivity, salinity, E-Coli (freshwater receiving water) or enterococcus (saline or brackish receiving water), surfactants (such as MBAS), temperature, and any other pollutants pursuant to Part 4.3.1."

The EPA needs to be flexible in its screening methods and what is accepted. In other regions of the country canine detection is used as an effective screening tool and it should be allowed in

this region. It has already been used and showed success in New England. If through the screening program an illicit discharge is detected, then further testing should commence. The required testing as it is outlined in the permit is a tremendous drain to the City of Manchester's resources.

3.1 Requirements for MS4s in New Hampshire

If NHDES determines that additional water quality certification requirements are necessary to protect water quality, then it may require applicants to meet additional conditions to obtain or continue coverage under this permit.

This requirement is difficult to plan and budget for as at anytime the NHDES can require a community to adhere to additional water quality requirements that were not outlined originally in this permit. This requirement needs to be reviewed by both the EPA and the NHDES to see if it is necessary or indeed fair to the community.

4.3 Outfall Monitoring

"The permittee shall monitor and sample its outfalls at a minimum through sampling and testing at the frequency and locations required in connection with IDDE screening under Part 2.3.4.8.d. through g. and 2.3.4.9.

The same comments that pertain to 2.3.4 Illicit Discharge Detection and Elimination (IDDE) Program pertain here and should be considered for this requirement.

III. Preliminary Engineering Comments

TMDL Public Notice and Expectations

Manchester was complying with a 'Watershed Restoration Plan' at the time Public Notice for the TMDLs in New Hampshire were issued. As we were following an approved plan, the expectation was the outline and premise of that plan would supersede any subsequent TMDL. Manchester had received notice of the new TMDLs via the 'Public Notice' process in late 2009 early 2010. The Executive Summaries of all four pond TMDLs outline the following sentences, *"The load allocation puts primary emphasis on reducing watershed phosphorus sources over other sources due to the relative load contribution from the watershed and practical implementation considerations. It is expected that these reductions would be phased in over a period of several years."*

At the time of the TMDLs public comment Manchester had a well established viable 'Urban Ponds Program' as a consequence of a CSO Administrative Order of 1999 and the 2003 MS4 Permit. In April of 2008, Manchester had completed a "Restoration Plan" for Nutt Pond as prepared by CEI and agreed upon in scope; modeling and engineering calculations by both the NHDES and EPA (see [Attachment 1](#)). Manchester had fully anticipated that this same process would be the condition for the other ponds so no comment was put forth on the TMDLs.

By the end of 2009 and early 2010, when the comment period was in place, there was an overall understanding between both the NHDES and the City of Manchester that our Urban Pond program was working very well and that the Stormwater annual report submissions were more than what was required. Manchester has never heard any concerns from either the EPA, or the NHDES with the

progress of our program and Manchester was led to believe, through the development of the Nutt's Pond Watershed Restoration Plan, that a target TMDL for our ponds was 15 ug/l for phosphorus. At that time of the TMDL notice, the program had been in existence for 10 years. Manchester had been making steady progress with compliance and the indication provided by the regulatory community was that everything was going well. The expectation was that the Restoration plan, agreed to by all parties a year previous, was the controlling document and the basis for Manchester moving forward on the Urban Pond Program.

Watershed Modeling Overview

Manchester is outlining the assumptions made in both the CEI Watershed Restoration Plan and the AECOM TMDL to identify significant modeling differences within both approaches. Both models, in view of predictive conditions vs. actual field conditions are off by greater than 90%. The specifics of each model are viewed in detail and demonstrate that phosphorus is not always an accurate predictor of algal blooms. There are many other conditions that can contribute to algal blooms.

The CEI Plan, page 3-1 under 3.1, Critical measurement states, *"It is expected that the goals may take years to achieve and actual in-pond measurements can vary widely from year to year due to climatic factors, therefore, the overall average and trend is important to review."* As the Nutt Pond Restoration Plan has been a focus of the City's for 13 years, and has yet to achieve WQ criteria, it would be unreasonable to expect full compliance with the currently issued MS4 permit in the five-year permit cycle. The experience with Nutt Pond demonstrates that even two five-year permit cycles would not have achieved compliance and this is the smallest pond within Manchester with a current TMDL.

The CEI, Watershed Restoration Plan, is very similar to the AECOM TMDL for Nutt Pond ([Attachment 2](#)) in basic assumptions.

Nutt Pond Watershed Restoration Plan

	Lake Area Acres	Lake Vol Gallons	Water Budget (gals/yr)	Watershed Acres	Gallons per Acre	Modeled TP Loading	Target TP Loading
AECOM	17.5	69,383,601	637,652,672	645	988,715	230.3 lbs	69.1 lbs
CEI	17.3	69,000,000	667,000,000	557	1,197,487	161.32 lbs	75 lbs

Note that the watershed acreage is different by 13.6% and the TP load is different by 30%. CEI used one model (Reckhow) and AECOM used an average of five models of which Reckhow was one and it had the lowest TP modeling predictive load of 28 ug/l (Kirchner-Dillon – 35 ug/l, Vollenweider – 39 ug/l, Larsen-Mercier – 32 ug/l, Jones-Bachmann – 34 ug/l and Reckhow – 28 ug/l). The calculated mass balance was 43 ug/l. It would appear that Reckhow is the most liberal of the group in predicting TP modeling.

The five AECOM empirical models have a predicted in-lake TP concentration for Nutt Pond between 28 and 39 ug/l which is a 28.2% variation. When compare the mass balance calculated amount of 43 ug/l that variation increase to 35%. That's a significance variation that can mean millions of dollars in the planning stage.

Even though Manchester has questions regarding the accuracy of the modeling there are now established TMDLs for these four ponds. The models for Dorr's and Nutt Pond state a algal bloom probability of 37.6% for Nutt Pond and 28.3% for Dorr's Pond. In 13 years of observation a algal bloom has never been witnessed on Dorr's Pond and only one small bloom at Nutt's Pond in October 2007 that covered less than 1% of the total water surface area (see photo in attachment No. 2). This puts the actual algal bloom probability over the past 13 years at 0% for the Dorr's Pond and 7.6% for Nutt Pond. This is significantly lower than the bloom rate calculated in the models.

The last bullet on page 7 of the MS4 draft permit states, *"The NHDES policy for interim nutrient threshold for primary contact recreation (i.e. swimming) in NH lakes is 15 ug/L chl-a. Lakes were also listed as impaired for swimming if surface blooms (or "scums") of cyanobacteria were present. A lake was listed even if scums were present only along a downwind shore."* This cyanobacteria bloom was on the downwind shore of Nutt Pond (see pictures in [Attachment 3](#)).

The north inlet is where the pictures were taken. The area of bloom is roughly calculated as 150 feet along the shore to about 10 feet from the shore (1,500 square feet). Nutt Pond has 7.1 hectares or 17.5 acres. The total surface area is 762,300 sq. ft. That is 2/10th of 1% of surface area covered in October. No other visual verification on either of the two ponds was noted in 13 years of sampling events or pond visits. This is hardly a justifiable recreational impairment when it happens only once in 13 years and in October when the swimming season has ended. Also note on [Attachment 4](#) (CEI Table 2-6) the total phosphorus levels for 2002 (average 25.5 ug/l TP with a maximum of 29 ug/l), 2003 (average 30 ug/l for TP with a maximum of 46 ug/l) and 2004 (average 33 ug/l TP with a maximum of 39 ug/l) yet none of these years had any evidence of algal bloom. This is significant field information as the TMDL models indicate there should be algal blooms on Nutt Pond 37.6% of the time (once every three years at a minimum). Even the models have significant variations in their predictive data output.

Watershed Modeling Specifics

The CEI report, page 2-11 states, *"Direct application of the calculated loads using the unadjusted pollutant loading values provided in Table 20-3 results in a predicted in-pond concentration of 282 ug/l, compared to the observed of 28 ug/l. Significant decreases to the literature based land use loading values were needed (91% reduction) to achieve calibration."* Table 2-3 uses both Northern Virginia and Reckhow land use TP loadings. This language outlines issues encountered with model calibration.

The AECOM report (page 3-4) implies that there were no such issues with their modeling efforts. The third bullet on page 3-4 indicates that, *"Areal loading estimates were attenuated based on natural features and implemented BMPs that would decrease loading. It was determined in the modeling that sub watersheds were attenuated by 58% and that a portion of the load to Nutt Pond is in particulate form and likely settles before it is available for phytoplankton. Using these levels of attenuation, we were able to predict annual average concentrations in the pond that were within the range of recent monitoring data."* Refer to Table C-4 of the AECOM report you find they also used Reckhow for land use TP loadings and Schloss rather than Northern Virginia in others.

Manchester has concerns with the modeling efforts done by AECOM. If Reckhow modeling indicated a needed model reduction of 91% to meet the most liberal modeling effort (28 ug/l predicted at a 15ug/l in-pond limit) then the AECOM modeling that used higher average figures was surely over a 91% reduction with the average predicted 34 ug/l at a 12 ug/l in-pond limit. Manchester is requesting that the AECOM modeling assumptions for Nutt Pond be forwarded for further review and

comparison to the CEI modeling before we can accept these loading conditions or agree to any MS4 permitting language. Manchester is assuming the error(s)/adjustments that needed to be made in the Nutt Pond modeling effort would be similar to representations made in the Dorr's Pond, Stevens Pond and Pine Island Pond TMDL modeling effort. This will provide Manchester with the magnitude of variation that is built into the AECOM TMDL Reports.

Both reports elaborate on concerns for the phosphorus trapped in the hypolimnion (bottom) layer that may, or may not, be available for phytoplankton uptake. The CEI report, page 2-6, indicated that Nutt Pond is stratified between April and October and that bottom TP concentrations from the hypolimnion layer are available between June and October. The calculation CEI uses (page 2-6) sets the hypolimnion layer at 130 ug/l. The AECOM report sets the hypolimnetic TP at 29 ug/l (Table 2-1).

This becomes a major concern as the AECOM TMDL requires a 70% reduction in TP loading (without potentially accounting appropriately for the hypolimnion TP contribution). If they discount the hypolimnetic TP potential loading, and CEI has estimated that load to be 30% of the total TP loading to Nutt Pond, then the maximum TP reduction would be in the range of 80% to 85% for the AECOM report rather than the 70% stated. It is well established that the maximum TP reduction that can be expected with all structural and non-structural BMPs put in place in any watershed is between 60% and 70%. In essence, Nutt Pond will never meet the TMDL target of 12 ug/l if you factor in hypolimnetic TP contribution outlined in the AECOM TMDL.

As pointed out in both documents, Manchester has been sampling the Urban Ponds since 2000 with a few earlier tests taken at Nutt Pond. The sampling data is included in Attachment 4 (Table 2-6 from the CEI report). Manchester has only observed one incidence of cyanobacteria (algal bloom) on Nutt Pond during that time (October 2007).

Nutt Pond 2007 Data

Date	Epilimnion Top layer	Metalimnion Middle layer	Hypolimnion Bottom layer
6/24/2007	19	19	69
7/22/2007	28	32	48
8/26/2007	22	34	17

It is clear that the higher TP hypolimnion layer of June contributed to the metalimnion layer and epilimnion layers in July and August. The hypolimnion layer steadily decreased from 69 ug/l to 48 ug/l to 17 ug/l while the metalimnion layer saw the steady increase from 19 ug/l to 32 ug/l to 34 ug/l. This supports CEI's inclusion of a higher hypolimnion TP in their equation.

More importantly, this data provides a snapshot into what Nutt Pond is capable of handling for TP loading before it reaches the state of algal bloom. The summer 2007 season algal bloom could have resulted from the transfer of TP through the three layers due to a season of uniform temperatures within the three layers. During 2007 the hypolimnion layer decreased from 69 ug/l to 17 ug/l. The metalimnion layer steadily increased from 19 ug/l to 34 ug/l and the epilimnion layer increased from June to July (19 ug/l to 28 ug/l) but then decreased to 22 ug/l in August. The significant decrease of TP in the lower layer demonstrates upward movement to the middle layer, which increases in TP saturation as the summer progresses. This increased middle layer is available for the upper layer and as the August TP falls, it is evidence that this TP is available for cyanobacteria growth at a rapid enough pace to produce the small algal bloom at the north inlet. This may be indicative of lower

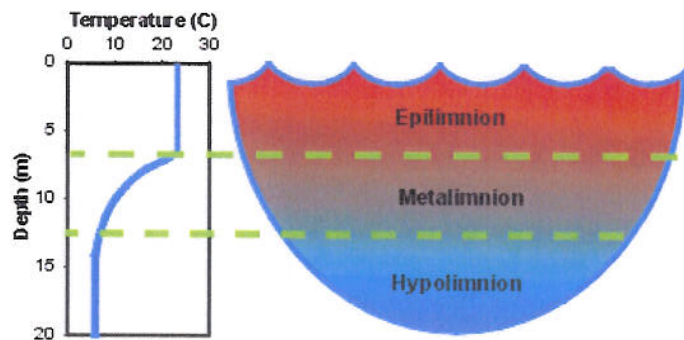
precipitation where pond water temperature is similar throughout the three layers which results in some type of turnover effect.

It may also indicate a year where hypolimnion layer dissolved oxygen was depleted creating anaerobic conditions and the rerelease of TP from this layer up into the upper layers. Without other supporting data it is hard to tell why 2007 had a bloom and there was no bloom in other years.

Note on attachment 4 that the 2002 season has similar TP concentrations in the upper layer, but that the middle layer shows a slight decrease in TP loading meaning the right amount of TP is never available in the upper layer for an algal bloom to progress. The 2003, 2004 and 2005 years follow the 2002 conditions to a certain extent and therefore, no algal blooms were noted in those years either.

It is evident that 12 ug/l TP in the epilimnion layer is an ultra conservative concentration standard that increases total abatement costs tremendously without need. As can be seen in the 2002 a maximum measured concentration of 46 ug/l of TP did not cause a bloom. In 2004 a measured level of 39 ug/l did not cause a bloom nor did a measured level of 33 ug/l in 2006 cause a bloom. It takes a specific required interplay of hypolimnion layer consistently depleted of oxygen rereleasing TP, the metalimnion layer of TP concentration steadily increasing, and subsequently providing a steady availability of TP to the epilimnion layer to produce an algal bloom. These three factors came together in 2007 at Nutt Pond.

As can be seen in the 2000 data there was a significant amount of TP (117 ug/l to 368 ug/l) available in the lower layer with similar transfer of TP to the middle layer, yet the top layer remained at 13 ug/l or less during the months of June, July and August. No algal bloom was seen as the stratified water temperature may have paralleled this model not providing a turnover effect for hypolimnion TP to rise to the surface. There are certainly other factors at play that are not considered within the models. These could include flush rate, amount of precipitation, amount of sunny days, surface wind, water temperature, etc.



Standard Temperature Gradient Lakes/Ponds

From what Manchester views within the dataset of Table 2-6 and has visually evidenced by one algal bloom, a simple step of placing supplemental aeration at the bottom of Nutt Pond and keeping the hypolimnion layer from going anaerobic and releasing TP may negate the need to spend countless millions of dollars on structural and non structural BMPs that may, or again may not, improve the water quality to a point where the 12 ug/l TP limit is met.

It is imperative we move away from the 'one size fits all' approach of 12 ug/l TP (that is only guidance and not a WQ concentration limit) reduction strategy concentration limit in all subsequent issued MS4 permits. Data verification, high level QA/QC and sampling protocols and annual pond physical condition should be the primary focus for the first five year permit cycle to accurately define the water quality improvements needed.

When Manchester looks at the other three TMDLs, and has had no visual verification of any algal blooms on either of these three ponds, it further supports that the 12 ug/l TP limit with 15 ug/l for chlorophyll-a as over restrictive and potentially very costly to the MS4 communities to comply with.

The below median data for TP for Dorrs Pond is 23 ug/l in the upper and 29 in the lower. There has been no recorded incidence of algal bloom in Dorrs Pond

Dorrs Pond WQ Summer Data Set from 2001 – 2007

	Upper TP ug/l	Lower TP ug/l	E-Inlet TP ug/l	Lessard Inlet TP- ug/l	Juniper Outlet TP- ug/l	Outlet TP ug/l	Secchi meters	Chlr-a ug/l	D.O. mg/l
# Samples	29	10	23	27	13	14	28	27	75
Minimum	13	16	9	11	5	19	1.1	1.5	0.1
Mean	25	29	26	33	74	27	1.8	11	5.5
Maximum	38	42	100	191	735	32	2.5	34.3	9.4
Median	23	29	21	27	16	28	1.7	8.9	5.6

The below median data for TP for Stevens Pond is 18 ug/l in the upper, 25 ug/l in the middle and 36 ug/l in the lower. There has been no recorded incidence of algal bloom in Stevens Pond

Stevens Pond WQ Summer Data Set from 2001 – 2007

	EPI TP ug/l	Meta TP ug/l	Hypo TP ug/l	Outlet TP ug/l	Secchi D in meters	Chlor-a ug/l	D.O. mg/l
# Samples	29	19	28	19	31	26	149
Minimum	9	10	9	10	1.2	0.9	0
Mean	22	28	44	22	2.7	17	5.4
Maximum	40	69	120	46	4.2	122.6	12.1
Median	18	25	36	19	2.9	7.2	6

The below median data for TP for Pine Island Pond is 21 ug/l in the upper, 26 ug/l in the lower and 34 ug/l in the bottom. There has been no recorded incidence of algal bloom in Pine Island Pond

Pine Island Pond WQ Summer Data Set from 2001 – 2007

	Upper TP ug/l	Lower TP ug/l	Bottom TP ug/l	Inlet TP ug/l	Outlet TP ug/l	Secchi D in meters	Chlor-a ug/l	D.O. mg/l
# Samples	32	13	28	33	31	32	30	149
Minimum	10	10	12	10	11	1	1	0
Mean	30	25	49	25	23	2	9	5
Maximum	220	39	422	132	52	5	22	11
Median	21	26	34	22	20	1.8	8	6

In close review of the data, the indication is that no one concentration parameter is a good indicator of overall compliance with WQ. It is an intricate interplay of Phosphorus, Chlorophyll-a, dissolved oxygen, water temperature, rain events etc. As can be seen from the above tables, all ponds were in non-compliance with the proposed 12 ug/l limit for TP, yet there was only one October incidence of algal bloom in one pond over a 12 year period. Looking at summer months

as being from May through October at four ponds that would give a total of 288 months of time at the four ponds. With only one month of non-compliance (Nutt Pond in October of 2007) that displays a non-compliance rate of $<1/2$ of 1% which is well within the compliance ratio as laid out in the NHDES CALM. This visual evidence over the 12 year period demonstrates that there is indeed compliance with WQ targets (no visible algal mats) and that the concentration targets are very conservative and do not serve MS4 communities best interests.

Costs to Implement the MS4 Permit

Manchester has calculated the cost to implement the abatement outlined in the four pond TMDLs as included in the NPDES, MS4 Draft Permit. The costs at 12 ug/l may indeed exceed \$700 million dollars. There are other additional checks that are outlined in this report and all of these checks support the calculated \$700 million dollar capital investment.

For the reasons identified herein Manchester believes that the models grossly overstate the needed reduction in annual pollutant loads that can go to these ponds. However, using the watershed data and water budget data from the TMDL reports we have looked at technology to treat for the loads as stated in the TMDLs. We were surprised at the cost potential and decided to match this against WWTP treatment costs. Manchester is in the fortunate position that it has operated under the MS4 permit since 2003 and runs the largest WWTP in the State, have reviewed the TMDLs thoroughly and have come up with the following conclusions regarding costs.

Manchester's WWTP treats wastewater from Manchester, Bedford, Goffstown and Londonderry and also takes Septage from a number of communities. The plant also takes in about 30+ mgd of Stormwater during wet-weather events. In 2010 Manchester's WWTP average daily discharge to the Merrimack River was 20.14 mgd (7.35 billion/gal/yr). In 2011 the WWTP average daily discharge was 24.22 mgd (8.84 billion/gal/yr). In 2012 the WWTP average daily discharge was 18.13 mgd (6.62 billion/gal/yr).

Table 3-1 of the TMDLs outlines a water budget. These water budgets are highlighted in the yellow cells of [Attachment 5](#) for each pond TMDL. The total watershed flow comprises atmospheric, runoff and base flow. As can be seen in the subsequent column of attachment 5, the Pine Island Pond watershed receives 18 billion gallons of inflow annually, Dorr's Pond 1.3 billion gallons of inflow, Stevens Pond 592 million gallons of inflow and Nutt Pond 638 million gallons of inflow annually. In total this is 20.57 billion gallons of flow from the watersheds of these four ponds. This is 2.33 to 3.11 times more flow than is treated at the WWTP (which also includes the wet weather events that are processed through the treatment plant) for an entire year. This provides a snapshot of the magnitude of the treatment requirements for the City's four pond TMDLs.

The NHDES is targeting a 100 ug/l TP in river limit for the WWTPs, yet is targeting a 12 ug/l limit in the ponds.

The City has a 23 year history of stormwater treatment and successfully used a StormTreat™ unit at Crystal Lake that was installed in 1989. In review of technical literature from the UNH Stormwater site and the performance expectations of each unit they've tested indicates that this is an appropriate system for meeting most of the pollutants outlined in the MS4 TMDLs would be the StormTreat units. Included as [Attachment 6](#) are the removal efficiencies for StormTreat. It is 90% effective or better for fecal coliform, TSS, most metals and phosphorus. These are the key pollutants in our MS4 area as indicated on Manchester's Surface Water Quality Status map (September 2008, [Attachment 7](#)).

A concern regarding key pollutants is that the NHDES has only focused on nutrient WQ impacts while keeping silent on metals. In review of CEI's Table 2-8 of their restoration plan, it determined during a wet weather sampling event in 2002 that lead had been measured between 9 ug/l and 147 ug/l, zinc was measured between 189 and 750 ug/l zinc and copper was measured between 220 and 680 ug/l. Chronic water quality parameters for lead are 2.5 ug/l, for zinc 120 ug/l and for copper 9 ug/l. The new TMDLs give a false hope that if a City/Town takes care of the nutrient problem, then everything else will be in compliance. The unknown is cadmium at a WQ level of 0.25 ug/l. Guard rails, galvanized piping, catalytic converters and metal brakes all have an abundance of cadmium in their construction. It is more than likely that all WQ within the State is impaired for cadmium.

The Nutt Pond testing demonstrates that this may indeed be the case and that a second round of structural BMP installations will need to be completed to achieve metals WQ compliance once the nutrient issues is resolved. That is why it is imperative that the next 5-year MS4 permit cycle be focused entirely on characterizing the water bodies within each affected community for WQ compliance before any structural implementation begins.

Manchester used the watershed acres for each of the four TMDL ponds as outlined in the MS4 draft permit (Nutt, Dorrs, Stevens and Pine Island) and determined a conservative percent pervious area for each watershed. All the data supplied in the TMDL was placed into a spreadsheet for quick reference (previous Attachment 5).

Manchester contacted the manufacturer of StormTreat to get an update of the costs to install these units. As StormTreat is one of the few structural BMPs that reduce nutrients and metals, we looked at similar installations to our Crystal Lake unit as it has proven to work and we know the maintenance history. The costing email from the StormTreat manufacturer and our design layout included as [Attachment 8](#).

Each series of StormTreat units requires a baffle tank to assure consistent removals of total and suspended solids and a good working system. This additional maintenance cost was factored into the total cost as outlined in [Attachment 9](#). Costs for the maintenance and upkeep of the baffle tanks to include inspections, cleaning, and annual planting are based on a decade of maintenance history.

A costing spreadsheet implementing StormTreat was developed ([Attachment 10](#)) for a 12 ug/l TP limit. The total conservative impervious area was estimated at 2,802 acres with an engineered need of 4,114 units to meet the treatment average of 60.5% of the TP load for all four TMDL watersheds. The estimated cost was is \$766,649,420. The average annual maintenance cost would be a little over \$3 million dollars a year (30% of Manchester's total \$10 million WWTP operating budget for a year). This cost mirrors the initial capital investment cost to build a WWTP capable of treating this amount of wastewater. EPA issued a Fact Sheet, also included in [Attachment 10](#) that outlines a sample cost for stormwater management. That cost is outlined in the following table.

EPA Estimated Cost per 1,000 ft² for Stormwater Management

Impervious % Range	Rate/Month per 1,000 Sq feet
Vacant 0%	\$ 0.08
Light development 1%-20%	\$ 0.12
Moderate development 21%-40%	\$ 0.16
Heavy development 41%-70%	\$ 0.24
Very heavy development 71%-100%	\$ 0.32

Manchester's Calculated Cost for meeting the 12 ug/l standard (\$28.25)

Total Acres Impervious	
43,560 ft ³ per acre – 2,802 impervious acres in Manchester	
122,055,120	Total Sq. Footage within Manchester's 4 TMDL Ponds
12,205.51	10,000 sq ft lots within the TMDL drainage area
\$ 1.60	EPA's Fact Sheet per lot/month cost to treat
\$ 19,528.82	Monthly Cost via EPA's estimate
\$ 234,345.83	Annual Cost EPA Estimate to treat
\$ 62,811.74	Manchester Capital Cost per 10,000 sq.ft. lot
\$ 3,140.59	Twenty Year Bonding the Annual Capital Cost
\$ 249.74	Manchester Annual Maintenance Costs
\$ 3,390.33	Manchester Annual 10,000 Sq Ft Cost
\$ 28.25	City Rate/month of 1,000 sq.ft pervious area
\$ 0.16	EPA Rate/month of 1,000 sq ft pervious area

Attachment 11 Evaluates the cost to meet a 13 ug/l limit by reducing the MOS slightly. The capital cost is reduced to \$698,480,351 (4,048 units needed) that means a savings of over \$68 million in capital costs and \$250k in annual maintenance costs. The City's monthly rate for 1,000 sq.ft. of impervious cost would be \$28.09 at 13 ug/l TP in-pond limit.

Attachment 12 Evaluates a 14 ug/l TP limit which reduces the MOS even further. The capital costs (3,679 units needed) saved at this 2 ug/l increase is almost \$132 million with over \$500k in annual maintenance costs. The City's monthly rate for 1,000 sq.ft. of impervious cost would be \$28.07 at 14 ug/l TP in-pond limit.

Attachment 13 Evaluates a 15 ug/l TP limit (the approved limit in CEI's Watershed Restoration Plan) the target in pond TP limit during the time since this issuance of Manchester's 2003 MS4 permit. The Capital costs have now dropped to \$571 million dollars (annual savings of almost \$196 million) and an annual savings in maintenance of \$762k. The City's monthly rate for 1,000 sq.ft. of impervious cost would be \$28.07 at 14 ug/l TP in-pond limit. Even though the TP limit has gone up in each of the above examples the economy of scale reduces with reducing pervious area so the costs remain essentially the same but spread out over less users.

Another cost verification is reviewing what Manchester has already completed for BMP structural work at Nutt Pond. Manchester has spent approximately \$1.5 million on restoration of wetland, two forebays, an inlet structure at the north inlet., pervious pavers, and plantings placed along the west side of the pond.

Nutt Pond's water budget is 637.65 million gallons per year. This is 3.1% of the total water budget (20.57 billion gallons) throughout the four TMDL listed ponds. Manchester anticipates that this additional constructed wetland may, or may not bring the pond in compliance with a 15 ug/l TP limit as outlined in the CEI document, and may not increase the D.O. non-compliance that is currently being experienced at the center of the pond in the epilimnion layer.

Nutt Pond will definitely not be in compliance with the 12 ug/l TP limit as proposed in the latest AECOM TMDL. To reduce this further to the 12 ug/l, Manchester would need to take the remaining footprint around the pond to further develop additional BMPs and also move out within the watershed to capture the flows that are not conveyed through the west and east inlets (See CEI Appendix C, Site Evaluations in Attachment 1). The current and planned BMPs treat approximately 20% +/- on the incoming flows to the pond (120 mil/gal/yr) an additional 80% BMP installation plan would need to be installed to treat to a level of 12 ug/l. As we are moving out in the watershed Manchester will need to purchase additional land, and install smaller structural BMPs, as the flow is not as concentrated as it is within the vicinity surrounding the pond. It can be expected that this additional cost would be upwards of \$20 million dollars to achieve both a consistent 12 ug/l TP and raise the D.O. to above the 5 mg/l minimum concentration.

If \$20 million dollars represents 3.1% of the water budget than the cost for watershed wide BMPs in the 4 TMDL pond areas is going to be \$645 million dollars. In review of the three calculated examples, it will cost Manchester over ½ of a billion dollars to meet the TMDL at four ponds. We still have a significant portion of the watershed in which to meet WQ standards. A billion dollars of cost is a real potential.

Another cost verification was performed looking at the UNH, Greenland Meadows LID Case Study ([Attachment 14](#)). The cost for Stormwater related site work was \$6,940,300 to treat 25.6 acres of pervious area (Table 1). As outlined in the 12 ug/l construction scenario, Manchester would be treating 2,802 pervious acres of land. That gives a ratio of Manchester pervious vs. Greenland Meadows pervious of 109.5:1. This factor multiplied by the \$6,940,300 cost for Greenland Meadows gives a total outlay of \$759,962,850 for Manchester's cost to provide treatment for our four pond TMDLs. The calculated total cost in Attachment 10 is \$766,649,420 confirming that Manchester's costing approach is sound and realistic to achieve WQ compliance in four urban ponds.

As can be seen at concentrations this small, with watershed budgets in the billions of gallons, cost can be astronomical when looked at closely. The NHDES 20% MOS is costing Manchester an additional \$196 million in capital costs and over \$760k in ongoing annual maintenance costs for the four pond TMDLs. As can be seen from the attached spreadsheets, the 20% MOS is a costly position that should not be mandated upon cities and towns where the TMDL ponds lie strictly within the municipal boundary.

[Attachment 15](#) looks at an Assay Grade chemical manufacturer's certificate of impurities for these acids that are used to fix field samples. As can be seen from the information provided, three drops of nitric acid have a probability of adding up to 15 ug/l of phosphate to a sample.

Allotted Time for Implementation

Manchester does not use assay grade acids for fixing sample containers and we are wondering if this is a practice that the NHDES labs undertakes to prepare samples.

Manchester has embraced an accelerated catch basin (CB) cleaning schedule within the City and has a program where the CBs immediately within the ponds watershed area are cleaned more frequently. We have installed a forebay and reconstructed an obsolete wetland at the east inlet of Nutt's Pond, a forebay and new inlet structure at the north inlet, porous pavers and plantings on the west side of the pond, and have plans for a gravel wetland to be installed over this summer. This is 13 years in the making and Manchester believed that this progress schedule kept within the spirit of the TMDL Executive Summary of, *"It is expected that these reductions would be phased in over a period of several years."* It is clear within this new draft MS4 permit that it is now a five-year period to complete several orders of magnitude of BMP structural implementation than what was done over the past 13 years. Much different than our expectations at the time the TMDL was put out to Public Comment.

Manchester has been ahead of the curve as we were deemed an MS4 community with the first permit issued in 2003. We have been in full compliance with the permit and have struggled to put together the funding to complete those requirements outlined in the first MS4 permit. This proposed MS4 Permit sets up conditions and expectations that are unrealistic for even the wealthiest communities across the country.

As the time schedule was accelerated at several orders of magnitude than Manchester ever thought would be proposed the City did a through investigation of the Surface Water Quality Status map for Manchester (previous attachment 7). Within this map, numerous water bodies are impaired for bacteria, metals, pH, D.O., D.O. saturation, chlorides, chlorophyll-a, Benthic-Macro invertebrate Bioassessments, foam / flocs / scum & oils, and non-native aquatic plants. BMPs will not significantly reduce all of these parameters by themselves and structural installations will eventually be the order of the day. Manchester has undertaken the BMP route for 13 years and obviously from the TMDLs issued has had little success with reaching the new goal of 12 ug/l for TP.

END OF COMMENTS

Town of Merrimack, New Hampshire

Public Works Department
6 Baboosic Lake Road, Merrimack, New Hampshire 03054
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August 12, 2013

Mr. Newton Tedder
US EPA - Region 1
5 Post Office Square, Suite 100
Mail Code OEP06
Boston, MA 02109-3912

RE: Comments/Questions on the 2013 NH Small MS4 Draft General Permit for the Town of Merrimack, NH

Dear Mr. Tedder:

Thank you for the opportunity to provide comments on the 2013 NH Small MS4 Draft General Permit that was issued in the Federal Register on February 12, 2013. On behalf of the Town of Merrimack, New Hampshire, we wish to offer the following comments/questions:

I. GENERAL ITEMS

1. Town Budgets

The Town of Merrimack, NH is a NH SB2 Town that operates on a July 1 to June 30 fiscal year. The typical budget cycle starts in the fall with preparation of proposed department budgets, progresses to Town Council review in December/January; followed by the public hearing in February and the deliberative session in March, culminating in the ballot vote in April. Given that the 2013 MS4 Draft General Permit was issued in February, and knowing that as an agency we cannot budget for an item until the costs are known, I ask that the year 1 implementation dates, and all successive implementation year dates, be set to one year from the first available budget year following issuance of the permit. The 5 year compliance schedule that is built into the 2013 MS4 Draft General Permit is very concentrated and without some adjustment for a town's budget schedule, it makes it very difficult for the Town of Merrimack to be on time and compliant. For example, if the Permit were issued in September of 2014, year 1 accomplishments would be due after July 1, 2016. Scheduling in this manner would allow the Town to review the issued permit during the budget process, determine costs and include those into the budget, allow for the funding to be approved at Town Meeting in April 2015 for July 1, 2015.

2. Cost to the Town

The cost to Merrimack to fund the programs in the 2013 MS4 Draft General Permit is estimated to be in the tens to hundreds of thousands of dollars annually with total costs for the five years in the millions of dollars. A large portion of the costs are related to the TMDL requirements and the IDDE program. Expenditures of this magnitude are out of line with the "maximum extent practicable" standard.

3. Current Efforts and Validation

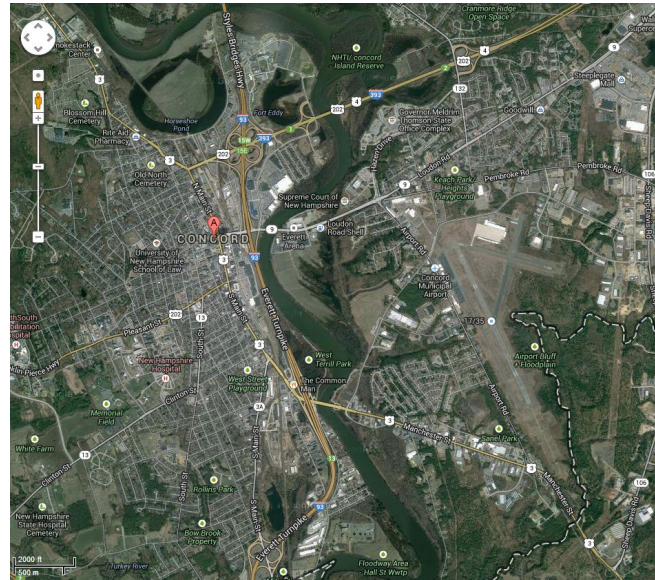
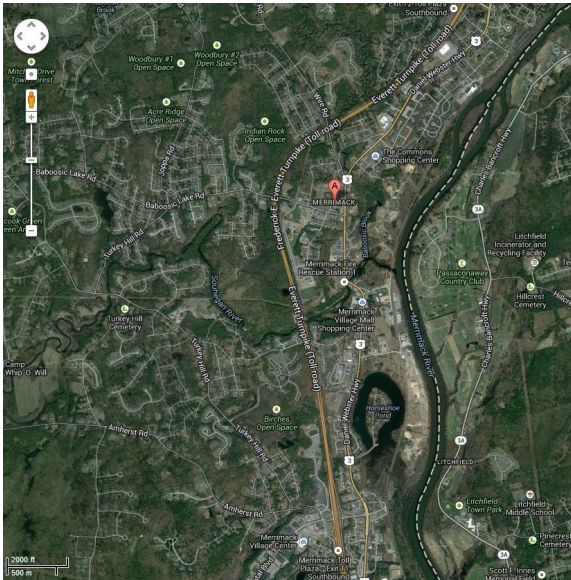
Merrimack has been working under the 2003 MS4 Draft General Permit requirements for ten years and has made significant strides in working toward the shared goal of clean water for the future. The Town has been successful in meeting the requirements of the 2003 MS4 Permit. The long term effect of these efforts since 2003, should be quantified and detailed, with data that is current, sufficient and applicable to get a clear baseline for the draft Permit requirements. We are concerned that there has been limited effort made by the EPA and the NHDES on recording, collecting, and reviewing data during and following the 2003 Permit versus working toward preparing a new permit with greatly enhanced and costly program requirements. It seems that working together incrementally, the EPA, State, and Municipalities can use fiscally constrained resources to achieve the water quality goals in a systematic approach rather than the forced 5-year approach that causes municipalities to spend millions of dollars on program requirements that may or may not achieve the goals. The following is a list of some of the accomplishments by the Town of Merrimack during the last 5 years under the 2003 Permit:

- Completed two major drainage improvement projects (at a cost of \$2M) that removed storm water flow that discharged directly to the Souhegan River and diverted the flows into infiltration basins and sedimentation basins
- Revised planning regulations to decrease parking area requirements
- Completed numerous projects that cut back on the amount of pavement for roadway intersection transitions. We continue to look for and plan projects to reduce the impervious areas of our roadways
- Wrote and Implemented a construction and post construction ordinance to include all disturbances over 20,000 square feet rather than the mandated 1 acre
- Worked closely with the Conservation Commission and Souhegan River Local Advisory Committee to brainstorm ideas for improving water quality
- The Conservation Commission continues to look for land purchases to protect resource areas. The Commission now manages over 1400 acres of protected lands in Merrimack

4. Town Program Inclusion

The EPA Stormwater Phase II Final Rule mandates inclusion in the small MS4 program if the municipality is not in the Phase I program and is in an Urbanized Area (UA) as defined by the Bureau of the Census, and on a case by case basis that the NPDES permitting authority designates. The U.S. Census Bureau defines an urban area as: *Core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile*. New Hampshire has 8 municipalities with a population density greater than 1000 per square mile with seven of the eight regulated by the MS4 program (Conway is not). NH has 27 municipalities with population densities greater than 500 per square mile. Of those 27, 22 are regulated (Conway, Concord, Keene, Laconia, and Sunapee are not). There are 39 municipalities with population density of less than 500 per square mile that are regulated, with Lyndeborough having the lowest density of only 54 per square mile. Given the large disparity between those that are regulated and not, please explain the criteria used for inclusion to the program.

Merrimack is listed in the Draft Permit as requiring a bacteria TMDL within the Merrimack River watershed. Concord contributes flow to the Merrimack River yet is not an MS4 community. By way of comparison, Merrimack is 12th in population density and 8th in population; Concord is 17th in population density and 3rd in population. A quick look of aerial views of each community shows the Merrimack (left) as a whole is far more rural than Concord (right) (see pictures below - both views taken at same scale). Merrimack requests removal from the program so long as contributing towns with greater areas of density up river are not included in the program.



At seminars on the shoreland protection program, NHDES has suggested that water quality deterioration begins when impervious area within a watershed exceeds 10%. Currently, Merrimack has approximately 7.5% impervious area. Of that total, 1% is directly attributable to the state roads in Merrimack (F.E. Everett Turnpike, Route 101A, Daniel Webster Highway - outside of the urban compact). Will the State be made to contribute 1/7.5 or 13% of the costs Merrimack bears for the stormwater program?

II. GENERAL PERMIT COMMENTS

1. Non-structural BMPs Scheduling

Enhanced non-structural Best Management Practices (BMPs) should be undertaken and completed to the full extent possible before the determination and expensive planning, designing and construction of the structural BMPs are even contemplated. Additional monitoring and analysis should be undertaken once the non-structural BMPs are in place and have had time to take effect. Only then, should the Towns commit to structural BMPs if the non-structural BMPs are not effective enough to effect water quality. In this manner the towns would have the flexibility to adjust programs, projects and goals to insure the maximum amount of efficiency of time, staffing and costs.

2. Scheduling of Non-structural and Structural BMPs in Year 2

Why would the non-structural controls and structural controls need to be detailed and described both in year 2? Much more time is needed to have controls in place and this schedule places a big burden to the Town in time and costs. Non-structural controls should be first and when they have been in place for an appropriate period of time and the effects of the non-structural controls have been quantified and verified then the Town would determine if structural BMPs are needed.

3. Duplication Error

In Table F.1 in Appendix F. MS4s subject to Statewide Bacteria TMDL under the Primary Town listing for Merrimack the Merrimack River and Souhegan River are listed twice. Is this a duplication error or is a specific section of the Rivers being called out? If this is so, then please note this in Table F.1

4. Permit Compliance

We are concerned that in section 1.5 Permit Compliance in Part I of the 2013 MS4 Draft General Permit Requirements it states that “Any non-compliance with any requirement of this permit constitutes a violation of the permit and the Clean Water Act and may be grounds for an enforcement action and may result in the imposition of injunctive relief and/or penalties” The EPA should have the burden to demonstrate that a discharge is causing or contributing to an impairment, not the permittee. In addition, this implies that the Town will be held responsible for the actions of others, such in the case of an illicit discharge that occurs within the MS4 system. The Town would also be held responsible for pollutant loadings generated upstream of its jurisdictional boundaries. The Town should not be held responsible at any time for the actions or discharges of others.

5. Endangered Species Requirements

In section 1.9.1 of Part 1 of the 2013 MS4 Draft General Permit there are requirements that the Town be responsible for determining if federally listed endangered or threatened species are found in proximity to the MS4’s outfalls and if such species are adversely affected by stormwater discharges or stormwater related activities, e.g. Best Management Practice (BMP) installations. Compliance with these requirements is the Federal Governments responsibility, not the Towns.

6. Water Quality Based Effluent Limitations

In Section 2.1 of Part 1 of the 2013 MS4 Draft General Permit requirements it is stated that the “permit includes provisions to ensure that discharges from the permittee’s small MS4 do not cause or contribute to an exceedance of water quality standards”. We understand that the Town should not be the cause of an exceedance, but a contribution may be possible and numerically may not always be a violation. For example, if a MS4 discharge with a flow of 10 gallons or less per day is in exceedance of the water quality standard for bacteria, this may have no additive effect on the millions of gallons of water that are in a receiving stream such as the Merrimack (Merrimack River has a flow of 420 million gallons per day in the Town of Merrimack) and Souhegan Rivers. The EPA and NHDES must show that the Town MS4 system is causing the violations and not that we are just contributing. EPA should have the

burden of demonstrating that a particular discharge is causing or contributing to impairment and not the Town.

7. 60 Day Rule

We feel that the 60 days in which the permittee must come into compliance is limiting and also should not be considered a violation of the Clean Water Act as noted in Section 2.1.1. c. of the 2013 MS4 Draft General Permit Requirements. Tracing a potential source of contamination through possibly dozens of manholes and stormwater structures will take more than 60 days and involve much staff, lab services and time. There should be more flexibility depending on the situation and its complexity and the Town should determine how long it may take. Also, the permittee should not be in violation since the source of the discharge may be outside the MS4 area and possibly in another jurisdiction.

8. Presumption of Contribution to Impairment

In Section 2.2.2 I, of the 2013 MS4 Draft General Permit Requirements the “EPA presumes that MS4 discharges are potential contributors to impairments due to nutrients (phosphorus or nitrogen, bacteria, etc.)”. We would like to see real quantifiable testing results as part of the process. A large portion of the data supporting this permit is outdated and of limited quantity.

9. Screening and Sampling Procedures

In Section 2.3.4.9. of the 2013 MS4 Draft General Permit Requirements it states that “the permittee shall adopt a screening and sampling protocol consistent with *EPA New England Stormwater Outfall Sampling Protocol (Draft, January 2012)*” Since this document is a draft, how can it be inserted into the 2013 MS4 General Permit without being first finalized by the EPA and NHDES.

10. Sump Cleaning Requirements

In Section 2.3.7.1.d.ii of the 2013 MS4 Draft General Permit Requirements there is a requirement that sumps in catch basins are no more than 50% full of materials from storm flow. What is the scientific basis for the percentage of material in a catch basin? The Town has a regular schedule of cleaning. We also note what basins fill more frequently and make an extra stop at these basins during the year. The EPA and NHDES have no authority to regulate the operation of a stormwater unit and the level of water or material in a sump should not be grounds for violation or the Clean Water Act.

11. Definition of Outfall

There is no definition of outfall in Appendix A of the 2013 MS4 Draft General Permit or in any other section or appendix of the Permit. There are many basins and drainage areas in Town that flow to swales and wooded areas. Some of these swales and wooded areas end somewhere before the water body. How do we determine what is an outfall?

12. TMDL Definition

In the 2013 MS4 Draft General Permit Appendix A, the definition of TMDL states that “A TMDL includes waste load allocations (WLAs) for point source discharges, load allocations (LAs) for non-point sources...” The developed TMDLs that are part of this 2013 MS4 Draft General Permit do not have sufficient WLAs. Instead, all of the loading that is causing the impairment is assumed to be discharged as part of the Town of Merrimack’s MS4 system. We believe that natural sources of pollutants may be a significant cause of the impairment.

13. Unfunded Mandate

On March 13, 2013 the EPA hosted an informational question and answer session at the NRPC offices in Merrimack. During the session, questions regarding the 2013 MS4 Draft General Permit and the various TMDL portions of the permit were posed to Newton Tedder of the EPA. The response to those questions was that DES was responsible for the TMDL content and he (Newton) could not respond to specifics. It can be gleaned from that session that the TMDL portion of the permit is a NHDES program, making it an unfunded mandate from the State of NH to its municipalities per Article 28-a of the New Hampshire Constitution.

III. TMDL REQUIREMENTS – HORSESHOE POND

1. Impairments Removed from the 303 (D) List of Threatened of Impaired Waters

In the NHDES document entitled Impairments Removed (i.e. delisted) from the 303 (D) list of threatened or impaired waters dated April 20, 2012, it states in Group 21 (Horseshoe Pond (NHLAK700060302-02) Chlorophyll-a for Aquatic Life Use (1), that:

“.....In 2010 the assessor accidentally set Chlorophyll a as impaired when they should have set Chloride (one row down in the database) as impaired.

In 2010 there was only one sample available for comparison to the Trophic Class based criteria for Chlorophyll a to protect Aquatic Life Use. Subsequent data collections have determined the median chlorophyll-a of 7.6 ug/L (n=13) is well below the 11 ug/L criteria for chlorophyll a and the median total phosphorous of 22.8 ug/L (n=8) is well below the 28 ug/L criteria for total phosphorous for a eurotrophic lake.

The 2020 listing was in error and since sampling indicates that the waterbody meets the chlorophyll a criteria to protect aquatic life for its trophic class, this assessment unit has been removed from the 303(d) List and placed in category 2 (Full Support) for impairment of Aquatic Life due to Chlorophyll-a. Chloride has been added to the 2012 303(d) as an impairment to Aquatic Life Use.”

It is important to note that although Horseshoe Pond has been removed from the 2012 Final 303(d) List to the EPA dated July 16, 2013 that a chlorophyll-a listing remains for Horseshoe Pond in the 2012 List of All Impaired or Threatened Waters List dated July 16, 2013. It is clear from this example that NHDES needs to review all TMDLs proposed in the NPDES MS4 Draft permit for current and accurate data. Proceeding otherwise will cause municipalities to spend millions of dollars, perhaps needlessly, trying to meet reduction load limits (the Horseshoe Pond TMDL listed in the Draft Permit requires 76% phosphorous removal).

2. Past MS4 Accomplishments and TMDLs

The 2013 MS4 Draft General Permit imposes Total Maximum Daily Limits (TMDL) on Horseshoe Pond through the *Horseshoe Pond Report by AECOM* for Phosphorus, based on samples taken from 1996-1999. Given that the Town of Merrimack has been working on the objectives outlined in the 2003 MS4 General Permit for 10 years, it would be fiscally prudent to obtain current data prior to requiring non-structural and structural measures to be put in place and have evaluated performance on the measures by the end of year 5 of the Permit, especially with the millions of dollars that could be required to meet the draft 2013 MS4 Draft General Permit requirements.

3. Limited Data Used to Determine Phosphorus TMDL

The limited data used for the TMDL developed by AECOM entitled *Horseshoe Pond Report Merrimack, NH, (January 2011)* relied on data collected from 1996 – 1999 (see Table 2.1 in the TMDL for Horseshoe Pond, Merrimack, NH 2011). In this table it is noted (bottom of table) that “Water quality statistics are calculated from 1996 – 1999 data”. In Table 2-2 of the TMDL for Horseshoe Pond, Merrimack, NH 2011, it notes in the table and the body of text in Section 2.1 that the Pond summer water quality summary table utilizes data from 1996 - 1999. Current, extensive and seasonal Phosphorus testing should be crucial to establishing appropriate and accurate TMDL requirements. If there is current data, then that data should be part of the TMDL that was included in the 2013 MS4 Draft General Permit. If there is none then the TMDL process needs to start over with data collection. How legitimate are these chlorophyll tests and cyanobacteria observations that were performed over 13 to 14 years ago? What is the validity for the sampling techniques, sample holding times, quality control measures, analysis methods and chains of custody? Were they appropriate at the time of the tests and observations?

4. Limitations to the Phosphorus Analysis

In section 3.4 on page 3.6 of the HP TMDL it is noted that there is “reasonable accounting of P sources” but that there are “several limitations to the analysis”. The limitations to the analysis include precipitation variability, spatial analysis limitations, total phosphorus coefficients that are regional estimates, total internal loading lack of data and restrictions to the model based on limited available data. Clearly, all of these factors place a great burden of doubt on the estimations of the final phosphorus analysis and the resultant TMDL. How can the EPA and the NHDES mandate that a set reduction in total phosphorus be achieved when there are very questionable limitations to the phosphorus analysis presented in the report and no hard phosphorus data?

5. Dissolved Oxygen (DO) Depletion and Total Phosphorus Reduction

It is noted in Section 2.6 of the 2013 MS4 Draft General Permit that “Reducing algal productivity through control of Total Phosphorus should also reduce hypolimnetic DO depletion although Horseshoe Pond is not currently listed as impaired with respect to DO. Why state that there is no issue with DO depletion in Horseshoe Pond but that the goal of Phosphorus reduction is to reduce DO depletion. This is implying a need and requirement for the Town that is beyond the scope of the *Horseshoe Pond TMDL Report by AECOM*.

6. Lack of Hard Data and Models to Establish TMDL Requirements

Instead of actual current data for establishing the TMDL requirement in the *Horseshoe Pond TMDL Report* it relies on several models to determine the epilimnion mean for the Pond. The model has been fed data from the 1996 – 1999 testing period. The models assume that the MS4 system in Merrimack is responsible for the impairment and that all of the loading is coming from the MS4 system. There is no concrete evidence that the MS4 system is causing the impairment. In Section 3.2 of the *Horseshoe Pond TMDL Report* it states that the “Annual areal loading of TP from the watershed is estimated to be 41.5 kg/yr which represents 90% of the total load to the Pond. Using an estimate and then developing requirements for the Town is wrong. Viewing the stormwater layer in the Town's GIS system shows four outfalls 'near' Horseshoe Pond. The distances from the end of the pipe to the Pond are 247', 131', 218' and 356' (running south to north). The stormwater runs through forested area before having a chance to reach the Pond.

7. No Loading Quantification for Establishing TMDL Requirements

Internal loads of TP and waterfowl numbers are not listed because there is reportedly no data available as noted in Section 3.2 of the *Horseshoe Pond TMDL Report*. In Section 3.4 it is stated that “Water quality data for Horseshoe Pond and its tributaries are limited, restricting calibration of the model” Also in Section 3.2 it is noted that “TP loading estimates from water fowl and internal loading could not be made due to the lack of data although the contributions from these sources as expected to be small relative to the watershed sources”. This is another example of how the loading quantification through current sampling needs to be completed if this TMDL is to be accurate and appropriate.

8. Use of Several Models to Predict In-Pond Total Phosphorus Concentrations

In Table 3.4 of the *Horseshoe Pond TMDL Report* five different empirical equation models and a mass balance are used to predict in-Pond concentrations of TP. The results of this table show variations of results from 81 ug/l to as low as 17 ug/l. The mean of these results (38 ug/L) is then used to determine the final TMDL for the Pond. This is another example of how loading quantification through current sampling needs to be completed if this TMDL is to be accurate and appropriate. In addition to Phosphorus loading, the in Pond concentrations of mean and peak chlorophyll-a, bloom probability and transparency (Secchi Disk Transparency) are also predicted. In Section 4.1 the Report notes that the target in-Pond TP concentration of 12ug/l needs to be achieved to meet water quality standards. Actual current data needs to be the basis for the assumptions made in this TMDL, taking into account the seasons, various Pond layers, overturn, and loading sources (natural, water fowl, internal). Only then will this be a defensible TMDL. No town will be able to convince elected officials that a report, largely based on predictions and modeling is worth spending tax payers dollars on.

9. Waste Load Allocations for Phosphorus are Questionable

In Section 5.1 of the *Horseshoe Pond TMDL Report* it is noted that “Waste load allocations identify the portion of the loading capacity that is allocated to point sources (such as MS4s) and load allocations identify the portion of the loading capacity that is allocated to non-point

sources (such as fields) and natural background” It also notes that “ in order to accurately develop allocations for these two categories of sources it is essential to have not only a complete accounting of each point source, but also a delineation of the associated drainage area and an estimate of the existing loading.” It goes on to say that the real challenge in splitting out point sources from non-point sources resides with the available data.” There is limited data used in this report for determining loading for point and non-point sources. The waste load allocation is being estimated along with the load allocation. It would seem that the report should have generated more current, appropriate and extensive sampling data (Phosphorus & Chlorophyll a) before the waste load and load allocations were fully developed. Section 5.1 also notes that “because sufficient information at the parcel level was simply not available in this watershed, it is infeasible to draw a distinction between stormwater from existing or future regulated point sources, non regulated point sources and non point sources”. This is used as the reason in the Permit as to why there is a single waste load allocation figure (expressed in a percent reduction) which has been set for the entire watershed.

10. Meeting Phosphorus Target of 12ug/L

Based on the Phosphorus target of 12 ug/L it may be impossible and will be very expensive for the Town of Merrimack to meet the targeted reduction of Phosphorus for two reasons as noted below:

- a. The percent reduction that is expected for TP is extremely difficult to achieve based on current literature as cited in the Report. The Horseshoe Pond TMDL Report cautions in Section 6.2 that “A reduction of 76% (from 38ug/L to 12ug/L) will be difficult to achieve without very aggressive action as it is greater than the maximum estimated achievable reduction of approximately 60 – 70 % (Center for Watershed Protection).” In Section 7.0 it also states that “Since the watershed load reduction required for Horseshoe Pond is 76%, the goal will be difficult to obtain.”*
- b. Also, the topography (steep wooded inclines to the Pond) and the lack of open space (due to concentrated residences/backyards) at Horseshoe Pond will greatly limit the options available to the Town for effective and reasonable best management practices (structural BMPs). The Report supports this conclusion as noted in Section 7.0 when it states that “Reductions greater than 70% are possible, but consideration of costs, space requirements, and legal ramifications (e.g. land acquisitions, jurisdictional issues), limit attainment of such reductions.*

There needs to be a incremental approach to reduction of Phosphorus, if needed, that includes extensive sampling and a process of logical steps utilizing first non-structural BMPs and then structural BMPs (if necessary) with evaluations of progress made in meeting water quality standards at various steps in the process.

IV. TMDL REQUIREMENTS - BACTERIA

1. Ambiguity on Sampling Sites

In Appendix F of the 2013 MS4 Draft General Permit Section 3 dealing with TMDLs states that “The WLA of MS4 discharges is set at that relevant water quality standard, although compliance with the TMDL will be based on the ambient water quality and not water quality

at the point of discharge (i.e. end of pipe).” This statement is in contradiction to the end of pipe reductions that are required as part of the TMDL and listed on Table F-1 MS4s Subject to Statewide Bacteria TMDL

2. Watershed Loadings Unfairly Applied in the Bacteria TMDL for Merrimack

The TMDL for Merrimack expects that certain percentages of bacterial reduction are now the responsibility of the Town. Merrimack is responsible for the Merrimack River. This is wrong in that on the other side of the Merrimack River is the Town of Litchfield. Litchfield is not covered under the 2013 MS4 Draft General Permit even though they clearly must have some point source and especially some non-point source discharge of bacteria into the Merrimack River. The Town of Merrimack is given the whole burden of reducing the bacteria loading to the River while other communities have no responsibility. In addition, bacteria loading upstream of Merrimack from some other communities such as Manchester (a CSO community and Concord (not covered by the 2013 MS4 Draft General Permit) may be the most significant contributors to the impairment of the River in Merrimack. Why should Merrimack be penalized for the loadings from other communities and non-point sources? It would be most prudent to have the State be the lead agency to correct deficiencies in State waters as it is inherently unfair to select which communities will bear the cost and which will not. Choosing the current method because of a defined tax source (property tax) instead of working through the State Legislature to secure appropriate funding is the wrong way to achieve clean water (which we all want) as it will lead to inefficient use of scarce funds. The State working at a more global watershed level would allow for efficiencies and economies of scale that cannot be obtained at the local level.

3. No Evidence that the MS4 Communities Need to Control Bacteria

There is no hard factual data or evidence that the MS4 control is necessary to achieve compliance with the applicable water quality standard or that the allocation in the TMDL when correctly applied (see previous note regarding Litchfield) will result in compliance with Clean Water Standards. We would like to see how this TMDL process was determined so that a discharge causes or contributes an exceedance of the bacteria standards. Before expensive controls are forced on the Town a thorough review of the data used to produce the TMDL is accomplished and that there is no uncertainty that the MS4 system in Merrimack is to blame for any exceedance in ambient river quality.

4. Discharge Water Quality Vs. Ambient Water Body Quality

Section 3. of Appendix F states that *"The WLA for MS4 discharges is set at the relevant water quality standard, although compliance with the TMDL will be based on ambient water quality and not water quality at the point of discharge (i.e., end of pipe)".* The general permit that is to be obtained by the municipalities is a Stormwater **Discharge** From MS4's permit. It is unreasonable given the 'Maximum Extent Practicable' standard to expect the municipality to bear the entire financial burden for cleaning State waters without proving that the end of pipe discharge is the major contributor to the impairment.

5. Street Sweeping

Section 3. ii. of Appendix F requires the sweeping of streets *"at least two times per year"*. Currently, the Town of Merrimack sweeps every public street, lot, and sidewalk each spring

as soon as the winter season allows at a current cost of more than \$50,000. During that operation, we pick up the residual sand that was applied during the winter season. Most of Merrimack's streets are uncurbed. A second sweeping of the streets would not be of practical or fiscal value for the Town as very little debris accumulates along the road edges during non-winter seasons.

V. ATTORNEY'S REVIEW AND COMMENTS

As a participant in the efforts of 20 other New Hampshire communities that are subject to the 2013 MS4 General Permit and have secured the legal services of Sheehan Phinney Bass + Green, PA, of Two Eagle Square, Concord, NH, we would like to directly reference, on our behalf, their submittal of comments to the EPA and the NHDES regarding the 2013 MS4 Draft General Permit.

VI. NEW DRAFT 2013 MS4 GENERAL PERMIT

Due to the many comments, questions, issues and concerns identified and noted in this letter about the 2013 MS4 Draft General Permit from the Town of Merrimack and also in the submittal of comments by Sheehan Bass + Green and other NH communities, we are respectfully requesting that the EPA and NHDES withdraw the 2013 MS4 Draft General Permit and reissue a new MS4 Draft General Permit for our review and comment as soon as possible.

Sincerely,

Richard Seymour, Public Works Director

Kyle Fox, Deputy Director/Town Engineer

cc: Eileen Cabanel, Town Manager
Merrimack Town Council



Donnalee Loxeau

MAYOR

August 15, 2013

Mr. Newton Tedder
U.S. Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Re: **2013 Draft New Hampshire Small MS4 General Permit
Comments from the City of Nashua**

Dear Mr. Tedder:

The City of Nashua appreciates the opportunity to provide comments on the 2013 Draft New Hampshire Small MS4 General Permit that was published in the Federal Register on February 12, 2013. The City participated in the Public Meeting held in Merrimack on March 8, 2013 and attended and commented at the Public Hearing in Portsmouth on March 28, 2013. As you are aware, the City also submitted comments on the 2008 Draft New Hampshire Small MS4 General Permit. The City would like to acknowledge its sincere appreciation for granting the two extensions for the public comment period for the 2013 Draft MS4 General Permit. The extensions gave the City and other local communities in the region an opportunity to better understand the changes to the permit language and fully consider the implications to our community.

The City feels that it is important to note that we have made significant progress towards improving the water quality of receiving waters over the past decade through our MS4 compliance activities and the implementation of our comprehensive CSO control program. Our investment in water quality improvements has been in excess of \$83 million dollars, including at least an estimated \$7.5M for stormwater alone since 2003. Compliance with the 2013 Draft MS4 Permit is an additional significant effort that cannot be supported with the City's existing resources and funding within the next 5-year permit cycle as the permit requires. The City wishes to continue improving stormwater management and water quality, but this effort needs to take into consideration the progress currently being made and be balanced with future infrastructure demands and economic conditions.

We have provided background information below to provide some context for how the proposed permit will affect our community, followed by comments and feedback specific to the proposed Small MS4 General Permit.

BACKGROUND

The City of Nashua has been proactive in its efforts to reduce pollutants discharged into waterways through the implementation of our MS4 and Combined Sewer Overflow (CSO)

programs. Approximately one quarter (25%) of the City's urban area is served by a combined storm drain and sanitary sewer system. In general, this results in the treatment of the "first flush" or 2-year storm event from the most developed area of the City. The City of Nashua is under an EPA Consent Decree (Civil Action No. 05-376-PB), dated December 26, 2005, to mitigate the impact of CSOs. CSOs have been identified as the most significant source for the *E. Coli* impairments within the reaches of the Nashua and Merrimack Rivers in the City. The City continues to complete projects related to the Consent Decree and reduce the occurrence of CSO events, and thus *E. Coli* being discharged into the waterways at the City's eight CSO locations. The City has nearly completed its \$76 million CSO Program with final construction work being scheduled for completion in 2015 and post-construction monitoring for the CSO program will begin once the Draft 2010 Post-Construction Monitoring is approved by EPA. The City anticipates significant improvements in water quality once the CSO Program is fully implemented and these results will impact the City's approach to future stormwater management activities.

The City continues to implement its existing MS4 permit requirements and, as a member of the Nashua Area Stormwater Coalition, works with surrounding communities to celebrate successes and address stormwater management challenges. The following activities are examples of the City's efforts to improve water quality and comply with the existing MS4 permit:

- The City continues to install low impact development elements as part of redevelopment projects on municipal-owned properties in highly visible locations.
- The City owns in excess of 6,500 catch basins with over 380 outfalls in separated sections of the City and has identified suspicious and problematic outfalls for continued monitoring.
- The City has an online Customer Service request form to allow residents to notify the City of drainage issues or suspicious discharges.
- A "Paulie the Pickerel" logo has been adopted as part of the public education program with colorful markers attached to catch basins.
- Good housekeeping measures continue to reduce salt and sand applications, sweep miles of roadway focusing on urban areas, and clean catch basin in high priority areas.

We believe that as we continue to evaluate and improve on these measures, we will build on the planning and initial implementation investment made under the 2003 MS4 permit. This allows us to focus on high priority areas and BMPs for the best use of the City's funds. Additionally, these efforts need to consider the new requirements proposed under draft NPDES Permit No. NH0100170 for the City's CSO program and wastewater treatment plant (CSO and WWTP Permit) that was issued for public comment on July 23, 2013. Continuous improvements in all these areas are geared towards a better fulfillment of the new permit requirements and our ultimate goal of water quality improvements.

COMMENTS ON PROPOSED MS4 GENERAL PERMIT

We have reviewed the 2013 Draft New Hampshire Small MS4 General Permit, and are concerned that our next permit will require a significant increase in the level of effort beyond the current program without taking into account the water quality improvements and measuring the effectiveness of the efforts already implemented in both the Stormwater and CSO Programs. We understand it is challenging to create an effective regulatory program to address a watershed-based problem that is also economically feasible. However, it is

incumbent upon the EPA to make every effort to develop a reasonable program with set goals achievable through a reasonable use of City resources, which builds upon the investments and improvements in water quality already made.

Our comments are organized by major topic with specific reference to the Draft 2013 MS4 Permit and the City's specific request for EPA's response and/or modification to the permit.

Administration & Recordkeeping

1. Part 1.7.2.d Notice of Intent – "The NOI shall be submitted within 90 days of the effective date of the permit."

Comment: The NOI requires a significant effort by the City and its stakeholders to develop and outline the City's 5-year program to meet the 2013 Draft Small MS4 General Permit, as written. The commitment to activities outlined in the NOI requires review and approval by multiple departments within the City and the authorization for funding needs to coincide with the City's budget cycle beginning July 1st. This effort cannot be effectively completed, reviewed and approved within such a short time frame. It is also more cost-effective to develop the NOI at the same time as the Stormwater Management Plan under Part 1.10 within one year of the effective date of the permit.

Request: The City requests that the EPA extend the deadline for submitting the NOI to one year from the effective date of the permit to allow more efficient integration and coordination with the Stormwater Management Plan development and the City's budget cycle beginning July 1st.

2. Part 1.10.c Stormwater Management Program (SWMP) – "The permittee is encouraged to maintain an adequate funding source for implementation of this program."

Comment: The increased level of effort to address water quality needs as required under the 2013 Draft Small MS4 General Permit should include Federal funding programs (e.g., grants, revolving loans, LID incentive programs, etc.). This is important not only for the ongoing evaluation of water quality issues and development of cost-effective solutions, but for the support of compliance implementation (construction). Many of the current water quality funding programs preclude NPDES Phase II planning and implementation activities or the revolving loan programs offer little incentive over the current bonding capacity of regulated communities. Additionally, the available funding through these programs in New Hampshire is very limited should additional MS4s seek assistance under competitive grant programs (e.g., s319 grants).

Although the City continues to seek alternative funding in support of these efforts, currently the City optimizes the use of available funds by prioritizing BMPs and focusing on known areas of concern. The City proposes to continue prioritization of BMPs as part of our SWMP to best use available funds as we continue to seek adequate funding sources, but as noted above, we request that a more robust Federal funding program be available to the MS4 communities in New Hampshire to support this Federal mandate.

Request: The City requests that the EPA and/or NH DES provide meaningful financial assistance to regulated MS4s to meet the MS4 Permit and address water quality problems.

3. Part 4.3.3 – "The permittee shall also include in the annual report results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period" conducted on behalf of the permittee or conducted by other entities and reported to the permittee."

Comment: Monitoring required and reported to the EPA under separate permits or administrative consents should not be required in the MS4 Annual Report, unless it is directly related to the completion of BMPs and/or measurable goals identified in the MS4's SWMP.

Request: Please provide justification and clearer direction on the information being requested in this part. The City suggests that EPA allow MS4s to reference other programs and/or permits that meet the objectives for data reporting to EPA. This allows the results from the CSO program to be included in a holistic approach for the City.

4. Part 4.4.2.5 – "All outfall screening and monitoring data collected by or on behalf of the permittee during the reporting period and cumulative for the permit term" shall be included in the annual report.

Comment: The information submitted with each annual report should be limited to the data collected during the reporting period. The intent of the annual report is to document new progress and it is an unnecessary administrative burden to continue reporting the cumulative data for the permit term with each annual report. This information will be tracked as part of the City's SWMP and made available to EPA upon request.

Request: Please remove the requirement to submit the cumulative data for the permit term with each annual report.

Public Education

5. Part 2.3.2.1.c.iv. Industrial Program – "The permittee shall at minimum consider the following topics [including Industrial Program] when developing the outreach/education program."

Comment: The City does not feel that the Industrial Program topic should be included in the MS4 Permit since private facilities are permitted separately under the NPDES Multi-Sector General Permit (MSGP), which is also within the EPA's jurisdiction. A municipal staff training program is already required under the MSGP and is implemented at MSGP-permitted municipal facilities.

Request: Please remove the reference to the industrial program from this part of the permit.

Illicit Discharge Detection and Elimination (IDDE)

6. *Part 2.3.4.2.c* – “The period between identification and elimination of an illicit discharge is not a grace period, and an illicit discharge to the MS4 remains a violation of the permit until eliminated.”

Comment: The City recognizes and understands that the MS4 Permit does not authorize illicit discharges. However, the purpose of the IDDE program is to identify and remove these unauthorized discharges. As long as the City has an effective IDDE program in place pursuant to Part 2.3.4 with a reasonable schedule for the removal of identified illicit discharges, the presence of such discharges should not constitute an ongoing violation of the permit. It would be more appropriate to state that failure to effectively implement the IDDE program is a violation.

Request: Please remove Parts 2.3.4.2.a and 2.3.4.2.c from the permit or revise these parts to rely upon the IDDE program to comply with the permit.

7. *Part 2.3.4.4 Sanitary Sewer Overflows* – This part and other references to Sanitary Sewer Overflows (SSOs) do not address operators of MS4s that are regulated under a CSO Program and an individual NPDES Permit.

Comment: As discussed above, the City of Nashua has a CSO Program under an EPA Consent Decree and approximately 25% of the City's urban area is served by a combined storm drain and sanitary sewer system that discharges to the City's wastewater treatment plant at Sawmill Road. The service area for this combined system is excluded from the regulated area under the MS4 permit. Additionally, the MS4 permit should provide flexibility for the City to develop a program that addresses SSOs as part of its CSO & WWTP Permit. Activities proposed under the draft CSO & WWTP Permit, such as the “Collection System Operation and Maintenance Plan ” (Part I.D.5), will assist in meeting the requirements related to SSOs. Reporting SSOs to two permit programs is an unnecessary administrative burden to the City.

Request: The City requests that the EPA revise Part 2.3.4.4 to provide flexibility in meeting the requirements through other NPDES permits and related programs that adequately address SSOs. In some cases, the schedule for meeting these requirements will be based on the efforts to meet the CSO & WWTP Permit (No. NH0100170).

8. *Part 2.3.4.6 System Mapping* – “This revised map of the MS4 shall be completed within two (2) years of the effective date of this permit.”

Comment: The system mapping requirements and recommended elements under this part identify important storm drain and sanitary sewer system characteristics to be used to prioritize catchments for illicit discharge investigations. It is important to note that the EPA is already requesting that the City prepare a detailed map of the sanitary sewer system under the draft CSO & WWTP Permit (Part I.D.5.4) within 30 months of the effective date of this permit. The storm drain system mapping should be coordinated with this effort to allow a more integrated and cost effective approach to gathering the data.

Request: The City requests that the EPA revise the schedule and allow at least 36 months for the development of the revised map to meet the requirements in Part 2.3.4. This will allow the City to develop an integrated mapping approach which will result in a more

effective Illicit Discharge Detection and Elimination Program, as well as provide critical information to address impaired waters under Part 2.2 of the draft MS4 Permit.

9. Part 2.3.4.8 – “The written IDDE program shall be completed within one (1) year of the effective date of the permit.”

Comment: As discussed under Item 8 above, the mapping and assessment of data for the storm drain and sanitary sewer systems is essential to the IDDE program. Therefore, an updated written IDDE program should be completed on a schedule that integrates the system mapping requirements under Part 2.3.4.6 of the draft MS4 Permit and Part I.D.5.4 of CSO & WWTP Permit.

Request: Please revise Part 2.3.4.8 to allow the City to meet an alternative schedule (e.g., 42 months) for the written IDDE program that builds upon the mapping efforts in Part 2.3.4.6 of the MS4 Permit and Part I.D.5.4 of the CSO & WWTP Permit.

10. Part 2.3.4.8.c.i – Excluded catchments are limited to those listed in the permit and do not consider any prior assessments completed under the 2003 MS4 permit.

Comment: Over the past permit cycle the City has implemented an outfall monitoring program and completed screening, monitoring, and testing of outfalls. In numerous cases, there was no evidence of illicit discharges at these outfalls and this information should be considered when setting priorities for future assessments.

Request: Please revise the permit to allow MS4s to identify additional excluded catchments and set priorities based on historic IDDE activities.

11. Part 2.3.4.8.d.iii Dry Weather Screening and Sampling – “When a flow is observed, a sample of the flow shall be collected and analyzed for the parameters listed in 2.3.4.8.d.v.”

Comment: The parameter list for dry weather monitoring should be specific to the outfall and receiving water body and not the generalized list in the permit. The flow should not be analyzed for all these parameters if the screening assessment does not indicate the potential pollutant. For example, if previous screening events and visual observation indicate that the flow is likely groundwater infiltration and the receiving water is impaired for pathogens, then the City should not be required to analyze for ammonia.

Request: Please revise the permit to provide flexibility for MS4s to exclude unnecessary analytical parameters for dry weather flows based on the MS4's understanding of the drainage system, water quality issues, and past analytical data.

12. Part 2.3.4.8.e.ii.b Wet Weather Investigation – “The permittee shall conduct at least one wet weather screening and sampling at the outfall for any catchment where one or more System Vulnerability Factors are present.”

Comment: Wet weather sampling requirements for outfalls should be based on a holistic approach that considers the evaluation of catchments under Part 2.3.4.8.c and the requirements for discharges to impaired waters under Part 2.2. A more focused wet weather investigation program for priority catchments will result in better data to guide corrective actions to improve water quality.

Request: Please revise the permit to provide flexibility for MS4s to conduct wet weather investigations based on priority catchments identified under Part 2.3.4.8.c and the MS4's understanding of the drainage system and water quality issues.

13. Part 2.3.4.8.f Removal and Confirmation – "Within one year of removal of all identified illicit discharge and SSO sources, confirmatory outfall or interconnection screening shall be conducted."

Part 2.3.4.8.g Follow-up Screening – "Upon completion of the catchment investigation . . . the catchment outfall or interconnection shall be scheduled for follow-up screening within five years . . ."

Comment: These requirements are unnecessary and require MS4s to repeat the initial catchment screening and detailed investigation previously completed. These efforts will consume much needed resources that could otherwise be focused on high priority areas for the investigation and removal of other potential illicit discharges.

Request: Please remove language from Part 2.3.4.8.f and all of Part 2.3.4.8.g from the permit and rely upon the documented IDDE investigations that result in the removal of illicit discharges.

14. Part 2.3.4.9.a IDDE Program Implementation Goals and Milestones – "The permittee shall complete dry weather screening and sampling (where flowing) of every MS4 outfall and interconnection (except Excluded and Problem Catchments) no later than three years from the permit effective date."

Comment: Based on previous screening efforts and available resources, the City's program will be most effective if its limited resources are focused on high priority catchments only for dry weather screening. Low priority catchments should be investigated only if priority catchment investigations have not identified a probable or significant source(s) of the problem during the permit term.

Request: Please remove the requirement to screen low priority catchments during the 5-year permit period.

15. Part 2.3.4.9.c – IDDE Program Implementation Goals and Milestones – "The permittee shall implement the Catchment Investigation Procedures in every catchment of the MS4, even where dry weather screening does not indicate evidence of illicit discharges."

Comment: The City completed an initial screening of its outfalls under the 2003 MS4 Permit and has identified catchments that require additional monitoring and/or investigation. The ability to reduce the number of catchments for physical investigation by a clearly defined desktop screening process in accordance with Part 2.3.4.8.e.i. would focus the City's efforts and result in a more feasible and achievable goal.

Request: Please remove the requirement to conduct catchment investigations in every catchment of the MS4, even where dry weather screening does not indicate evidence of illicit discharges. The IDDE program development, specifically the priority ranking of catchments based on detailed mapping information, is an appropriate screening tool

to focus the City's efforts on catchments where illicit discharges are most likely to be present.

Construction Site and Post-Construction Runoff Control

16. Part 2.1.2 New or Increased Discharges – This part holds the MS4 responsible for compliance with the NH antidegradation regulations.

Comment: All development has an incremental impact to stormwater that is not fully mitigated through even the best management practices available. Therefore, 100% compliance with the antidegradation regulations cannot be guaranteed.

Request: The City requests that the EPA require compliance with the antidegradation regulations to the Maximum Extent Practicable.

17. Part 2.3.6.8.b Directly Connected Impervious Area – “Within two (2) years of the effective date of this permit, the permittee shall complete an inventory and priority ranking of permittee-owned property and infrastructure that could be retrofitted with BMPs . . .”

Comment: The City agrees that an inventory of infrastructure for potential BMP retrofits is a good approach to understand where to make improvements to mitigate the stormwater impacts associated with impervious areas. The City understands the need and continues to look for opportunities to install BMPs at its schools and municipally-owned properties. However, the mapping requirements in Part 2.3.4.6 of the MS4 Permit and Part I.D.5.4 of the CSO & WWTP Permit, as well as the efforts to develop WQRPs under Part 2.2.2 of the MS4 Permit, will guide and inform the need for BMP retrofits. Developing and evaluating this data will lead to a more focused effort to evaluate potential BMP retrofits and the schedule for the mapping and other data gathering does not coincide with the schedule outlined in this part of the permit.

Request: Please revise the schedule under Part 2.3.6.8.b to allow sufficient time (i.e., Permit Year 4) to integrate the schedule for WQRP development under Part 2.2.2 of the permit.

Good Housekeeping and Pollution Prevention

18. Part 2.3.7.1 Operations and Maintenance (O&M) Programs

Comment: The City encourages the EPA to more thoroughly review the economic impact and implementation timeframe proposed under the MS4 Permit. Many of the requirements outlined in the proposed permit represent an order of magnitude increase in effort to address municipal operations that is only preceded by the wastewater treatment initiatives of the 1970s, which was supported by a Federal funding program. Similar funding programs need to be developed to meet the objectives of the stormwater rules under the Clean Water Act since the proposed level of effort cannot be sustained locally. The City of Nashua wishes to enhance its O&M Program, but we have focused on priority areas to maximize the effectiveness of current resources and funding to address water quality concerns.

For example, the City has documented at least 6,500 catch basins, 2,900 manholes, 380 outfalls, 253 culverts, and 43 public BMPs and therefore, over 10,000 storm drain system components that would need to be inspected and/or investigated under the new MS4

Permit. To meet the milestone of 100% inspected/investigated in a 5 year period, the City would need to inspect at least 8 structures per workday. Essentially, the City would need to hire multiple full-time positions within the next permit term just to do the inspections. This doesn't even include the cost of police details or the labor investment required to follow up on any findings or more detailed investigations. The City's current program consists of inspections completed by existing staff based on known problem areas and reports from citizens.

Consideration should be given to the fact that MS4 communities in NH lose three to four months a year to winter temperatures during which vacuum equipment cannot operate. Therefore, the annual workload needs to be accommodated within an approximate 8 month timeframe when resources are competing to operate and maintain other City infrastructure.

Request: Please revise Part 2.3.7.1 to allow MS4s to develop an economically feasible O&M program with a modest increase in effort focused on priority areas over the next 5-year permit cycle.

19. Part 2.3.7.1.d.ii Third Bullet – “Establish, for other catch basins, a schedule that the frequency of routine cleaning will ensure that no catch basin at anytime will be more than 50 percent full.”

Comment: The requirement to clean catch basins that are more than 50% full is first required in the first bullet of this part for catch basins draining to impaired waters where the pollutant of concern was sediment. Why prioritize catch basins in these impaired waters if the same requirement is going to be applied to all catch basins? Shouldn't there be more prioritization for cleaning requirements? It would be clearer if the guidance for catch basin cleaning in impaired watersheds (for sediment, nitrogen, or phosphorus) was in a separate part from the guidance for catch basin cleaning in all other areas.

Due to the burden of ensuring that every catch basin does not exceed 50% full, the City is interested in first evaluating the inspection results from catchments to determine high priority cleaning areas and to develop an effective sediment loading projection program.

Request: The City requests that the EPA allow MS4s to develop a prioritized cleaning schedule based on catchments that are known to contribute sediment to outfalls and not hold all catch basins to the same standard to not exceed 50% full. Additionally, the catch basin cleaning requirements specific to impaired watersheds should be outlined in a separate section of the permit.

20. Part 2.3.7.d.vi - “All permit-owned stormwater treatment structures (excluding catch basins) shall be inspected annually at a minimum.”

Comment: Being proactive, the City has installed a CDS unit, many Vortechtechnics, Stormceptors, hoods, and other BMPs throughout the City. The inspection frequency should not be set arbitrarily, but should be based on recommended industry best practice, manufacturer's recommendation, and inspection history.

Request: Please revise this part to allow the MS4 to set the appropriate inspection frequency for stormwater treatment structures. Additionally, the City requests that the EPA allow MS4s to develop a prioritized cleaning schedule for all BMPs.

Non-Numeric Effluent Limitations

21. Part 2.1.1.a Requirement to Meet Water Quality Standards – "Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water."

Comment: The reason for the permit is to develop procedures to ensure that stormwater discharges do not negatively impact receiving waters to the Maximum Extent Practicable. The language above should be clarified to reflect the intent of the permit process.

Request: Revise this part of the permit to clarify that "Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water **to the maximum extent practicable based on the measures outlined in the MS4's SWMP to meet Part 2.3 of the permit.**"

22. Part 2.1.1.c – " . . . within 60 days of becoming aware of the situation eliminate the conditions causing or contributing to an exceedance of water quality standards." and "Any discharge causing or contributing to an exceedance of applicable water quality standards violates Part 2.1.1.a of this permit and remains a violation until eliminated."

Comment: The requirements in Part 2.3 of the permit, including the Water Quality Response Plan (WQRP) (Part 2.2.2.a.ii), adequately address discharges that are a concern to water quality. It is important to note that as part of the City's SWMP and/or future WQRPs, the reduction or elimination of all pollutants from all stormwater discharges may not be necessary to meet water quality standards. As written, this part implies that permittees will be in violation of the permit for discharges that are being addressed as part of a WQRP. In addition, 60 days may be an unrealistic time frame, depending upon the cause of the exceedance and time of year when the exceedance is discovered.

Request: Remove Part 2.1.1.c from the permit and rely upon the requirements under Parts 2.2 and 2.3 to meet water quality standards.

Impaired Waters

23. Part 2.2.2 Discharge to an Impaired Water without an Approved TMDL – "Phase 1. Preliminary evaluation and source identification for MS4 discharges and identification of additional and/or modified BMPs to address the pollutant of concern ("Planned BMPs") – Part 2.2.2.a Phase 1 shall be completed 1 year from the effective date of the permit."

Comment: In the City of Nashua, these requirements apply to the following water bodies for bacteria impairments:

- Nashua River - Mine Falls Dam Pond
- Lyle Reed Brook
- Muddy Brook
- Unnamed Brooks (2)

- o Public Water Supply Ponds & Brooks

This phase requires the development of a Water Quality Response Plan (WQRP) in Year 1 for each impairment. For the City of Nashua, this phase would require the development of at least six WQRPs in one year based on the most recent 303(d) list. The City does not have the data or resources to develop these plans within the requested timeframe.

MS4s cannot identify and commit to stormwater BMP retrofits and other capital improvements without supporting data and a sound scientific approach to demonstrate that the proposed solutions will adequately address the problem. Without TMDL guidance, which would include potential source identification, it is unfair to place the burden on MS4s to evaluate all the EPA "presumed" list of numerous sources, especially when the City has not previously been required to evaluate them and has limited available data. The responsibility of developing a sound scientific approach and supporting data for remedial efforts has been pushed to MS4s with limited resources. The EPA should lead efforts to develop scientifically-supported data that will demonstrate the need for, and effectiveness of, stormwater BMPs before requiring such under the permit. In the absence of such support, the schedule for developing a WQRP(s) for impaired waters under the MS4 Permit should be extended.

Request: The City requests that the EPA extend the schedule to complete the WQRPs no earlier than Permit Year 4 to coincide with the completion of additional tasks under the new permit. For example, this includes the catchment assessments within the first 3 years of the MS4 permit and the sanitary sewer mapping efforts within the first 30 months of the CSO & WWTP Permit (refer to Items 8 and 9).

24. Part 2.2.2.a.ii.(a) Water Quality Response Plan Discharge – Additionally, the WQRP is supposed to identify ". . . additional or modified BMPs the permittee will implement to ensure it will not cause or contribute to the impairment."

Comment: BMP analysis, especially for structural BMPs with high capital costs, requires planning, modeling, design, and approval prior to implementation. This planning process cannot be completed within one year, especially when the evaluation of sources needs to be completed first. The EPA must understand that with the time constraint of 1 year, the WQRP can only include a conceptual approach with an initial assessment of capital improvements based on insufficient data. Any capital improvement planning would have to be approved at a later date.

Request: The City requests that the EPA revise this part of the permit to extend the timeframe for developing specific BMPs in the WQRP once sufficient data is available (refer to Item 23).

25. Part 2.2.2.a.ii.(b).3. Water Quality Response Plan – The WQRP requires a schedule from funding through implementation and evaluation, which must begin no later than 18 months after the permit effective date and be fully implemented within 3 years of the permit effective date, or 5 years for major projects. Non-structural BMPs are presumed feasible within two years.

Comment: The timeline for implementation of BMP retrofits is unreasonable based on the significant investment in planning, design, and construction needed. Given the

constraints and the lack of financial assistance to develop this program at the local level, the timeline for comprehensively addressing stormwater issues and water quality standards will be on the order of several decades, not several years. The BMP schedules should be specific to the proposed measure and order of magnitude cost to implement. For example, a modified public education program, since one is already on-going, is feasible within the established time frame. But another non-structural BMP such as more stringent development/ redevelopment requirements may require more than the presumed two years. Major projects should be given a longer timeframe to plan and implement based on a prioritized capital improvement plan.

The permit does not specify a schedule for EPA to review and approve the WQRPs, once submitted. The City cannot be expected to implement a program based on the WQRPs without formal approval, unless a presumptive approval is granted.

Request: The City requests that the EPA revise this part of the permit to extend the timeframe for implementation and evaluation of the WQRP to be begin in Year 5 of the permit. This will follow the proposed schedule for developing the WQRP in Permit Year 4, as requested under Item 23 above.

26. Part 2.2.2.a.ii.(b) 4 – Include in the WQRP, “A description of the monitoring or other assessment and evaluation efforts that will be implemented to monitor, assess, or evaluate the effectiveness of the WQRP.”

Comment: The City submitted a Combined Sewer Overflow Control Program Post Construction Monitoring Plan dated December 25, 2010 to EPA, as required under the Consent Decree (Civil Action No. 05-376-PB) dated December 26, 2005. To date, the City has not received any feedback from EPA on this monitoring plan and additional monitoring is proposed in the draft CSO & WWTP Permit. The City feels that this monitoring program is essential to evaluate the results of the improvements to address the impacts from CSOs and assist in evaluating water quality issues for the Merrimack and Nashua Rivers. The City of Nashua would like to build upon the monitoring efforts under the CSO program to meet the objectives for monitoring under the WQRP requirements in the draft MS4 Permit.

Request: The City requests that the EPA revise this part to allow MS4s to incorporate activities under other NPDES permits, as well as the schedule for meeting the WQRP monitoring requirements.

27. Part 2.2.2.c.i. Reassessment of Implemented BMPs – “Within four years of the permit effective date, the permittee shall reassess the implemented BMPs and the MS4's initial evaluation...”

Comment: The schedule for reassessing implemented BMPs needs to be extended based on the requested change to the schedule for development and implementation of the WQRPs discussed under Items 23-25 above.

Request: The City requests that the EPA revise the schedule for assessing the BMPs implemented under a WQRP to occur during the next permit cycle (i.e., after Permit Year 5).

28. Part 2.2.2.c.ii. Prospective BMPs – “For discharges identified... after the first year, the WQRP shall be completed within 180 days...”

Comment: The WQRP is intended to identify and prioritize BMPs to address the most significant contributors to water quality problems. It is unreasonable to require the City to develop a WQRP for specific discharges when these will be prioritized as part of the overall WQRP for each water body.

Request: Please remove this paragraph of Part 2.2.2.c.ii. Also, please note that the City is requesting removal of Part 2.1.1.c (refer to Item 22 above).

29. Part 2.2.4. Discharges to Chloride-Impaired Waters – “... the permittee shall meet the requirements set forth in Appendix H.” From Appendix H: “... the permittee shall develop a Salt Reduction Plan that includes specific actions designed to achieve salt reduction on municipal roads and facilities, and on private facilities that drain to the MS4. The Salt Reduction Plan shall be completed within (3) years of the effective date of the permit ...”

Comment: It appears that the development and implementation of the Salt Reduction Plan under Part 2.2.4 of the permit is sufficient to meet the WQRP requirements under Part 2.2.2. However, the Salt Reduction Plan includes requirements for the City to address the use of salt on private properties. The City does not have the authority or resources to regulate this activity on private properties and this part of the permit places a significant burden on the City. It would be more appropriate for the City to incorporate public education for private properties into the Salt Reduction Plan.

Request: Please revise Part 2.2.4 of the permit to state that compliance with this part meets the requirements of Part 2.2.2. Please remove the requirements for privately maintained facilities that drain to the MS4 and regulate these properties as part of a statewide program that is administered and enforced by the EPA and/or NH DES. If the EPA wishes to incorporate requirements for privately maintained facilities as the MS4's responsibility, these requirements should be limited to public education.

TMDLs

30. Part 2.2.1g. Discharges Subject to an Approved TMDL – “The Year 5 annual report shall include a quantitative assessment of load reductions achieved through the implemented controls demonstrating that such reductions are consistent with the load reductions identified in the WLA...”

Comment: The EPA needs to provide guidance on calculating estimated load reductions for bacteria from structural and non-structural BMPs, such as education and housekeeping activities, similar to those provided in Appendix F for the phosphorus TMDLs. Otherwise, the quantitative assessment should be limited to the monitoring program to evaluate the water quality at receiving waters as a measure of load reduction. In addition, the eastern and northern political boundaries of Nashua are the approximate center line in waterways. The “Primary Town” is listed as only one community, even when the source of the pollutant is unknown. It is difficult for one community to address the “quantitative assessment of load reductions achieved through the implemented controls” when only one community on a shared waterway is implementing BMPs.

Request: Please revise Part 2.2.1.g to allow MS4s to meet the quantitative assessment requirements related to TMDLs through in-stream monitoring and not just load reductions. For example, this could also incorporate the strategy for meeting Part 2.2.2.a.ii.(b) 4, as discussed under Item 26 above. Also, please explain the "Primary Town" listing and the responsibility of an adjacent community on a shared impaired waterway.

31. Appendix F, Bacteria TMDLs 3.ii. Good House Keeping (Part 2.3.7.1.d) – "The permittee shall increase the frequency of street sweeping in areas that discharge to any waterbody with an approved bacteria TMDL to at least two times per year."

Comment: Same as Item 19 regarding the requirements outlined in the proposed permit that represent an order of magnitude increase in effort to address municipal operations and lack of funding to support these requirements. The approach for street sweeping needs to be based on the watershed characteristics (e.g., land use, road lane miles) and what is necessary to reduce pollutant loads to these water bodies based on monitoring and/or WQRPs. Not all areas will require a sweeping frequency of two times per year and these resources could be better utilized to sweep other identified high priority areas.

Request: Please remove the requirement to sweep at least two times per year in watersheds with an approved bacteria TMDL. The frequency for street sweeping should be based on the requirements outlined in Part 2.3.7.1.d.iii.

In closing, thank you for the opportunity to comment on the 2013 Draft New Hampshire Small MS4 General Permit and for your consideration of these comments as the permit is finalized. We hope that these comments and information are helpful in shaping the new MS4 Permit and the City respectfully requests a written response from EPA to each of the items in this letter.

The City feels we are proactive in our Stormwater Management Program and are sensitive to focusing on the high priority areas of the City. As the CSO Program continues to go forward and we continue to implement our Stormwater Management Plan under the MS4 Permit, we continue to move towards the mutual goal of improved water quality in our waterways. If you have any questions or wish to discuss this information, please feel free to contact our Public Works Director, Lisa Fauteux, by phone at 603-589-3140 or e-mail at FauteuxL@nashuanh.gov.

Respectfully,



Donnalee Lozeau

cc: Thelma Murphy, US EPA Region 1
Jeff Andrews, NHDES, Water Division
Richard Niles, Water Resources Project Manager, AMEC
Jean Haggerty, Associate Water Resources Planner, AMEC
Lisa Fauteux, Director, Public Works Division, City of Nashua
Stephen Dookran, P.E., City Engineer, City of Nashua



City of Rochester, New Hampshire

PUBLIC WORKS DEPARTMENT

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August 14, 2013

USEPA

5 Post Office Square – Suite 100

Mail Code-OEP06-4

Boston, MA 02109-3912

ATTN: Newton Tedder

**RE: Comments to the 2013 NH Small MS4 Draft General Permit
City of Rochester, NH**

Dear Mr. Tedder:

Please find attached comments submitted on behalf of City of Rochester which are to supplement the comments submitted by Sheehan Phinney Bass + Green, PA on behalf of the New Hampshire Stormwater Coalition regarding the proposed NH Small MS4 Draft General Permit issued on February 12, 2013.

1.5 Permit Compliance

As written, the City of Rochester would be in noncompliance of the 2013 NH Small MS4 Draft General Permit and potentially the Clean Water Act, and therefore subject to potential enforcement action upon issuance of the permit. The City should be given a reasonable timeframe implement the necessary measures to reduce the pollutant load in those receiving waters identified in table F-1 in Appendix F.

1.9.2 Documentation Regarding Historic Properties

New mapping and reporting requirements have been included in the 2013 NH Small MS4 Draft General Permit. With the new permit, all drainage structures within the City of Rochester's MS4 system we will be documented. The City of Rochester has hundreds of drainage structures, which are not all currently mapped, and many, if not most, are on private or State owned property. The City may be required to undertake Section 106 reviews for each and every catch basin, detention pond and drainage swale that will be worked on. This will place an undue burden on the City of Rochester.

1.10 Stormwater Management Program

The requirement to complete and enforce a stormwater management program within one year of permit issuance is unreasonable. EPA does not explain how its determination took into account

the varying sizes and complexities of the MS4s covered, nor the level and extent of activities that may have to undertake especially in regards to the requirements of sections 2.1 and 2.3.

The City of has hundreds of stormwater discharge points, many of which are from private or State owned properties. The scope of work to develop and enforce a SWMP will be difficult if not impossible to complete properly in one year. The final schedule for compliance cannot be determined when the scope of work is unknown.

The City of Rochester is the third largest city, based on land area in New Hampshire with hundreds of stormwater discharge points, and many are from private or State owned properties. The scope of work to develop and enforce a SWMP cannot be completed in one year, nor can most if not all of the other scheduled requirements be reasonably met. The schedule for compliance cannot be determined when the scope of work is unknown.

2.0 Non-Numeric Effluent Limitations

It is confusing and difficult to understand the actual requirements of the “maximum extent practicable” (MEP) reductions. EPA, by its own records, documents in this permit that it is not necessary in all cases to implement best management practices (BMPs) to the maximum extent practicable to meet water quality. Specifically, approved total maximum daily loads (TMDLs) in Appendix F Table F.2, document that it is not necessary to implement BMPs to the maximum extent practicable to meet the TMDL waste load allocation (WLA).

2.2.1 Discharges Subject to an Approved TMDL

The permit should allow for confirmation that the receiving waters are:

- Actually impaired by the specific parameter
- The small MS4 is a significant contributor
- The appropriateness of the waterbody being listed on the 303(d) list

No source data was provided in Appendix F to support the information presented in Tables F-1 and F-2. It is unknown how many water samples the TMDL is based on, how long ago the samples were taken, the appropriateness of the methodology used and the accuracy of the data. Additionally, it appears that headings in Tables F-1 and F-2 are incorrectly placed, which brings into question the validity of all the information presented.

The City of Rochester should be provided all source data used to develop the TMDLs along with clear and simplified explanations of the information, and be given ample time to review the information to confirm that the 303(d) listing is appropriate before the permit is implemented.

It is the responsibility of the NH DES and EPA to determine whether the City of Rochester is a significant contributor to the pollutant in question.

2.2.2 Discharges to an Impaired Water without an Approved TMDL

The City of Rochester should not have to comply with the provisions related to nitrogen impairment designation for the Great Bay Estuary as detailed in Appendix H. The NH DES and EPA have yet to establish that the City of Rochester is a significant contributor of nitrogen.

The EPA lacks the authority to require the City of Rochester to determine how a discharge of pollutants will be controlled such that it does not cause or contribute to the impairment. It is the responsibility of the state and or EPA to determine the level of control necessary through development of a TMDL.

The EPA has failed to consider the impact on the City of Rochester in setting a one-year timeframe for completing the requirements of Phase 1, which includes the requirement for the City of Rochester to develop a Water Quality Response Plan. It will be extremely difficult if not impossible to complete the scope of work required to comply with Phase 1 in one year. The time requirements should take into account system complexity, land area, funding availability and available resources. It is not apparent that the time frames have been set with a full understanding of the municipality's approval processes. It is the responsibility of the municipality to the public to follow certain procedures including staff and committee reviews, public outreach and comments, full city council reviews etc. prior to allocating funding towards any improvements..

It is not clear to what extent the identified source categories reduce the various pollutants of concern.

Clear benefits of the structural BMPs and retrofits have not been provided, yet the implementation of the retrofits are required as part of the WQRP.

The EPA has failed to consider the impact on the City of Rochester in setting the timeframe for final source identification, assessment and implementation of BMPs. All time requirements to implement BMPs should take into account system complexity, land area, funding availability, available resources and review and approval processes.

2.3.2 Public Education and Outreach

The EPA states that the objective of this measure is to educate the public and change behavior. EPA does not explain its authority to require this objective given that EPA does not document if or how much this requirement will reduce the pollutant of concern nor does EPA provide any calculations on levels of pollution reduction that can be attained and credited.

2.3.4 Illicit Discharge Detection and Elimination Program

Under the 2013 NH Small MS4 Draft General Permit, the EPA lacks the authority to require the City of Rochester to report on sanitary sewer overflow events that do not enter the MS4. Therefore, all requirements regarding reporting of SSOs should be stricken, unless the SSO enters the MS4.

The time requirements to complete the IDDE program should take into account system complexity, land area, funding availability and available resources.

There is a conflict with the time period to correct an illicit discharge. This section states 30 days, while elsewhere in the permit, a 60 day period is provided.

2.3.6 Stormwater Management in New Development and Redevelopment

EPA does not have the authority to implement this section as it clearly states that its goal is to mirror or improve the preconstruction hydrology of the site. Hydrology relates to flow and flow is not a pollutant and cannot be regulated under this permit. These requirements should be stricken from the permit.

The EPA does not have the authority to implement sections 2.3.6.6 or 2.3.6.8 as it seeks to control the amount of impervious cover within the City of Rochester. Impervious cover is a surrogate for flow and flow is not a pollutant and cannot be regulated under this permit.

The EPA does not have the authority to mandate the City of Rochester's use of a specific BMPs such as low impact development or a green infrastructure practices.

2.3.7 Good Housekeeping and Pollution Prevention for Municipal Operations

Annual sweeping of all streets is required in the 2013 NH Small MS4 Draft General Permit. This is not practical, since only curbed streets should be swept. Sweeping streets that do not have curbing will not result in any significant removal of sand and debris, since these items are naturally washed off the street and into the shoulder. Only sweeping of curbed streets should be required. Installing curbing on un-curbed streets would facilitate sweeping, but would be costly and would require the construction of catch basins and storm sewers which is counter to the 2013 NH Small MS4 Draft General Permit. The requirement to sweep all streets should be stricken from the permit.

General Comments

G1 - The final 2012 303(d) list for waters that require a TMDL includes several impaired waters within the City of Rochester. In the 2013 NH Small MS4 Draft General Permit with the exception of those listed in Appendix F, Tables F-1 and F-2 there is no information on how these impairments should be addressed. The EPA should provide guidance on how these impaired waters will be dealt with.

G2 – Based on the information available, the City of Rochester preliminarily estimates that the sampling programs dictated in the 2013 NH Small MS4 Draft General Permit will alone cost in excess of \$150,000. The expenditure must be approved by the City Council as part of the City's standard budgeting program. Our budget for FY14 (July 1, 2013 to June 30, 2014) is already set and does not include an allowance for this expenditure. The earliest the City can begin any

sampling efforts will be after July 1, 2014. Therefore, it is likely that the City will be issued the final permit, but will not be able to begin the required efforts for several months. It will be extremely difficult, if not impossible for the City of Rochester to comply with the permit within the time frames dictated because the City's budgeting process does not allow it.

G3 – To comply with the requirements of the 2013 NH Small MS4 Draft General Permit, it is estimated that the City of Rochester will be facing upwards of \$250 million to \$300 million to comply within the five year period. This, coupled, with the potential need for a significant wastewater treatment facility upgrade once the currently expired NPDES permit is reissued, will create significant financial hardship for the City of Rochester. An affordability guideline should be developed by the EPA and an affordability assessment be completed for the City of Rochester. That affordability information should then be followed to allow the City of Rochester sufficient time to distribute the costs for compliance in a manner.

Thank you for the opportunity to submit these comments on the NH Small MS4 Draft General Permit.

Very Truly Yours,

A handwritten signature in blue ink, appearing to read "Peter C. Nourse", with a stylized flourish at the end.

Peter C. Nourse, PE
Director of Public Works

Good afternoon sir-

I am writing to express my support for the MS4 proposal, in hope that New Hampshire will act as a leader in storm water policies for New England , I am a Massachusetts resident , but it all flows downstream. watersheds cross borders and healthy watersheds bring communities together

Thank you for your time and (I hope) your support

Andy Leahy

Sent from my iPad

Dear Mr. Tedder

I'm writing to express my support of the EPA's proposed NH MSF general permit, the new requirement that small cities and towns in New Hampshire with municipal separate storm sewer systems ensure storm water runoff is minimized and treated before it pollutes waterways. I hope that this model is implemented in Massachusetts down the road.

The requirement is vital to our health and the health of our communities.

Sincerely,

Benita Danzing
Newtonville, Massachusetts

I support any efforts to limit damage to our waterways from runoff, thank you for considering this important issue. Elaine Leahy, Stoughton, Ma.

Sent from my iPad

Comments on Draft NH MS4 stormwater NPDES Permit

15 August 2013

from Roger Frymire
22 Fairmont Avenue
Cambridge MA 02139
617-492-0180
ramjet@alum.mit.edu

Thank you for this opportunity to comment. I am highly in support of the permit and see it going a long way towards removing some of the large amounts of sewage variously reaching our public waterways.

1) I especially support the regular wet and dry-weather testing of outfalls and note that this testing generally follows the requirements in the recent Federal Court settlement of the Boston stormwater case. I agree that the timescale allowed for fixing problems identified in this testing is appropriately less stringent than in Boston as BWSC had a 20-year history of poor progress to be addressed.

2) Realizing the burden outfall sampling (especially wet-weather) places on permittees, I continue to look for reasonable ways to lessen their costs. Towards this, possibly the re-testing intervals for outfall sampling might be stretched for outfalls to unimpaired waterways. (if the first round shows no problem)

3) I believe stormwater and CSO permits should be combined for CSO communities. CSO problems are merely a variety of stormwater impact. Besides lessening the number of permits needed, overall solutions especially involving green infrastructure may be better reached if a single framework for CSO communities' stormwater can be defined.

4) Public support for sewer and stormwater infrastructure expenditures will only occur with greater public education and notification - especially of notable possible health impacts. To this end, outfall signage for both CSO and stormwater outfalls with sewage contamination needs to be highly visible and understandable. A green and white CSO wet weather overflow sign is not getting the job done. I propose that a single simple criteria be set for ALL outfalls: If E.Coli levels are found over 10,000 cfu/100ml twice in a two-year period, a BIOHAZARD orange and black sign specifying SEWAGE CONTAMINATION or WET WEATHER SEWAGE OVERFLOW should be required and maintained until such problem is fixed.

Again, thank you for your attention to these comments.

Sincerely,
Roger Frymire

I support the MS4 permit proposal for New Hampshire.

Thank you!

Kristen Hoffman

Mr. Tedder,

I applaud EPA's initiative in requiring strong stormwater standards to keep our precious and finite water resources clean.

Please forge ahead with your proposed MS4 general permit in New Hampshire. I am hoping this becomes a template for the rest of New England.

If EPA does not protect our water resources, who will?

Sincerely,

Paul Lauenstein
4 Gavins Pond Road
Sharon, MA
781-784-2986

PS - I am a Board member of the Neponset River Watershed Association, a member of the Water Supply Citizens Advisory Committee of the Massachusetts Water Resources Authority, and a member of the Massachusetts Rivers Alliance.

I am sending this in support of the EPA's proposed NH MS4 general permit currently being proposed. I live on a small lake that has seen a significant increase in cyanobacteria over the last few years with the cause being primarily the addition of nutrients from fertilizer and storm water run off. Any action that can reduce this pollutant will be greatly appreciated.

Mark Wolfe



UNH – Facilities
Tel: (603) 862-1390
Fax: (603) 862-0143

DURHAM/UNH
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PARTNERSHIP
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Fax: (603) 868-8063

August 15, 2013

Mr. Newton Tedder
US EPA—Region 1
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

SUBJECT: Comments on the 2013 Draft NH Small MS4 General Permit
No. NHR041000 and No. NHR042000

Dear Mr. Tedder:

On behalf of both the Town of Durham, New Hampshire and the University of New Hampshire, the Durham/UNH Integrated Watershed Partnership respectfully submits the below comments relative to the 2013 Draft New Hampshire Small Municipal Separate Storm Sewer System (MS4) General Permit NHR041000 and NHR042000.

Introduction

The Town of Durham (the “Town”) and the University of New Hampshire (“UNH”) previously submitted individual comments on EPA’s December 2008 MS4 draft permit. On June 5, 2012, EPA issued an Integrated Municipal Stormwater and Wastewater Planning Approach Framework memorandum. The purpose of the memorandum was to provide guidance for developing and implementing effective integrated plans such that efficiencies could be achieved in meeting requirements that arise from separate wastewater and stormwater programs. The Town and UNH have since formed the Durham/UNH Integrated Watershed Partnership (the “Partnership”) and are in the process of developing and implementing an integrated planning and permitting approach with regulatory agencies, other dischargers and affected stakeholders.

The previous comments submitted on the 2008 MS4 draft permit from the Town and UNH were submitted individually because EPA’s integrated planning approach framework was not available at that time and the Partnership had not been formulated. These new set of comments submitted jointly by the Partnership on the 2013 draft permit relate primarily to incorporation of the integrated planning approach in the MS4 permit and suggested amendments and modifications to the draft MS4 permit to ensure sufficient flexibility to fully

implement the integrated planning approach while balancing Clean Water Act compliance obligations with sustainability, cost effectiveness, and GREEN technological innovation.

Where appropriate, the Partnership has suggested specific language to be used for amendments or revisions to the draft 2013 permit.

General Comments on Proposed MS4 Permit

The Partnership requests that the following general language be included in the Introduction of the proposed 2013 MS4 permit:

To the maximum extent allowed by laws in effect, EPA may develop special permit limitations or conditions for the purpose of facilitating implementation of an integrated planning approach as set out in Section IV of EPA's June 5, 2012 Integrated Municipal Stormwater and Wastewater Planning Approach Framework.

This new general language explicitly recognizes that MS4 permits, in conjunction with NPDES permits, are at the heart of the Integrated Planning Approach Framework.

Similarly, introductory permit language should be added similar to that contained in 40 CFR § 122.30(d) which provides:

"EPA strongly encourages partnerships and the watershed approach as the management framework for efficiently, effectively, and consistently protecting and restoring aquatic ecosystems and protecting public health."

Specific Comments on the 2013 Proposed MS4 Permit

Page 8 of 60. Part 1.7.4 sets out the public notice requirements associated with the NOI. As currently drafted the public comment period is a "minimum of 30 calendar days." Based on the NOI and the public comments received, EPA may extend the public comment period and deny authorization under the MS4 permit. The potential for delay built into these proposed timeframes is significant, particularly for facilities already licensed under the prior MS4. Timeframes may make sense for new MS4 permittees who may not have developed stormwater management programs and begun implementing minimum control measures. But, for existing facilities that have these in place and are providing detailed information in the NOI, there should be a set time in which approval will be provided by EPA following submission of a complete application.

Page 9 of 60. Part 1.8 should be relabeled **Individual Permits, Alternative General Permits and Integrated Planning and Permitting.**

A new Part 1.8.d should summarize EPA's intention to incorporate integrated plans into MS4 and NPDES permits where appropriate and assert EPA's authority to tailor MS4 permit terms and conditions to foster integrated planning. The Partnership offers the following suggested language:

EPA may modify any requirement or provision of this permit when incorporating integrated plans into MS4 or associated NPDES permits provided that standards protective of public health and water quality are maintained.

Page 10 of 60. A new Part 1.10.d should be added. Suggested language:

The SWMP may be developed jointly with other MS4 permittees in a watershed and may be part of a integrated planning document established in conformance with EPA's Integrated Planning Approach Framework.

Page 12 of 60. Existing Part 1.10.3. This Part should be re numbered since it does not relate specifically to a stormwater management program like other subsections of Part 1.10.

Page 13 or 60. Parts 2.0 and 2.1 of the 2013 proposed permit constitute new, more stringent, water quality-based effluent limitations. As such, a compliance schedule may be established (if authorized under state law) to allow sufficient time for compliance. In its Response to Comments on the 2008 draft permit, EPA notes that "New Hampshire's water quality standards do not provide for compliance schedules." (Footnote 23, p.50) However, New Hampshire statutes appear to allow compliance schedules "consistent with the purposes and requirements of applicable federal law." See Chapter 485-A:13.

It is the Partnership's understanding that the New Hampshire Department of Environmental Services ("NHDES") will be proposing a clarifying rule specifically authorizing compliance schedules for new water quality-based effluent limitations. The Partnership requests that EPA either determine that New Hampshire's current statute satisfies the requirements of *In re Star-Kist Caribe, Inc.*, 3 E.A.D. 172 (1990) or alternatively that EPA defer action on the requirements to meet water quality standards (Parts 2.1 and 2.2) until the NHDES rule is adopted and available to MS4 permittees, particularly in light of the prohibitions in Parts 1.5 and 2.1.1(a).

Page 13 of 60. Part 2.1.1(a) mandates that discharges "shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria for the receiving water)". Part 2.1.1(c) further stipulates that "even though 60 days have been given to the permittee to eliminate the conditions causing or contributing to an exceedance of applicable water quality standards" the 60 day period is not a grace period; a violation remains "until eliminated." The 60 day period provided in the proposed permit "does not excuse or otherwise constitute a defense to a violation of Part 2.1.1(a)." In essence, the permit requires that the permittee comply with water quality standards immediately upon issuance.

This provision does not make sense in the context of Clean Water Act permitting or other provisions of the proposed permit. Typically, when permits are issued authorizing discharges to receiving waters that are not in attainment, the permit contains limitations and conditions which assure that the water quality standards will be attained **within the term of the permit** or longer if a compliance schedule beyond the term is warranted. EPA acknowledges that it “may take decades or longer to address the water quality impacts of existing stormwater discharges.” Yet it is unwilling to give an MS4 permittee one day to achieve compliance. The NH MS4 permittee will be subject to enforcement immediately even though it complies with all permit conditions.

Under Section 1342(k) of the Clean Water Act (the Permit Shield provision), compliance with a permit’s terms and conditions is deemed to be in compliance with water quality-based effluent limitations (“WQBELs”) (Section 1312) which are in turn designed to achieve water quality standards. See 40 CFR 122.44(d). Yet, even if the permittee complies with all WQBELs, the proposed permit terms “do not excuse or otherwise constitute a defense to a violation of Part 2.1.1(a).” In addition, EPA now presumes that MS4 discharges, such as the Partnership of Durham, are “potential contributors” to nutrient impaired waters. Part 2.2.2.a.1.a.

In the 2008 proposed draft this issue was properly addressed by including the following presumption: “In the absence of information suggesting otherwise, discharges will be presumed to meet the applicable water quality standards if the permittee fully satisfies the provision of this permit.” This presumption was removed because it had “no meaningful purpose in the permit.” (Response to Comments, P.39.) On the contrary, the 2008 presumption is vitally important and meaningful given the lack of information associated with the new WQBELs. WQBELs are generally based on an extensive reasonable potential analyses, which incorporate flow, dilution factors, mixing zones, water quality modeling and instream and discharge data. Most of these factors are unknown in the case of intermittent MS4 discharges. The permit writer, rather than the permittee, develops and considers these factors. The 2013 permit shifts the burden of obtaining all this information onto the permittee. More importantly, it also has imposed a presumption of immediate non-compliance onto the discharger.

Notwithstanding EPA’s Response to Comments which suggest that the 2013 permit has addressed concerns about the 60 day time period to eliminate the conditions causing non-attainment of water quality standards (Response to Comments, P.40), this is not the case. A permittee who is not be able to eliminate a discharge causing or contributing to non-attainment within 60 days is now required to develop a Water Quality Response Plan. The preparation of a plan may toll the 60 day elimination requirement but does provide a defense to the requirements of Part 2.1.1(a) relating to water quality attainment.

The proposed permit gives a 60 day period to eliminate discharges causing or contributing to an exceedance of applicable water quality standards and then takes away the 60 day period. It

is possible that an MS4 permittee may be able to eliminate a discharge in certain circumstances within the specified 60 day period of time but there is little likelihood and certainly no guarantee that the conditions causing or contributing to an exceedance of applicable water quality standards such as aquatic life in Great Bay can be achieved within 60 days. There may be instream conditions or other conditions not immediately remedied by the elimination or reduction of a specific pollutant in the discharge that continue the non-attainment.

As drafted, Part 2.1.1 also creates inconsistency with other provisions of the proposed permit. For example, Part 2.2.2(a)(1) allows the permittee one year to evaluate its discharges to impaired waters in order to (1) "assess whether MS4 discharges are potential contributors to the identified impairment" and (2) "identify sources of pollutant(s) of concern in the MS4 area draining to the impaired waters." This leads to the absurd situation where a permittee has one year to evaluate discharges to impaired waters to determine whether they are impacting water quality standards under Part 2.2.2.a.1.a, three years to implement necessary BMPs, under Part 2.2.2.a.1.1.3, a two year reassessment process under 2.2.2.c but no time under 2.1.1(a) to come into compliance with standards.

The Partnership requests that additional time be given for the elimination of discharges causing or contributing to an exceedance of applicable water quality standards, particularly where multiple sources contribute to the discharge. The Partnership also requests that if a Water Quality Response Plan is timely prepared and other permit terms complied with, that there be a presumption that water quality standards will be achieved.

EPA indicates that it will use its discretion to and "take into a permittees good faith efforts to comply" when considering enforcement action for exceedances of water quality standards. However, EPA's intentions are not relevant if a permittee is sued by a third party for failure to comply with Part 2.1.1 because it discharges a measurable amount of pollutant contributing to non-attainment. No matter how thorough or efficient a Partnership is when implementing its MS4 permit obligations it could be considered to be in violation of the permit condition contained in Part 2.1.1.

Page 17 of 60. In Part 2.2.2 captioned "**Discharge to an Impaired Water Without an Approved TMDL**," the permit sets out an iterative approach for addressing such a discharge. The phased approach outlined makes sense and the timeframes specified appear to be sufficient for identifying, implementing and assessing the necessary BMPs. However, what does not make sense is the lack of a defined pollutant reduction target for any pollutant of concern. The MS4 permit is in essence requiring individual municipalities to develop and implement a TMDL because neither the state nor the federal agencies have done so. All that a municipality can do is target pollutant reductions that it is responsible for on a given watershed and try to coordinate, to the best it can, with other municipalities on the watershed. This approach is obviously not as effective as having a TMDL or even a water quality report or model that would provide some target levels for a point and non-point source reduction.

Absent the agencies willingness to conduct a TMDL, the municipalities can identify pollutants of concern and reduce them, but there is no standard by which to evaluate the amount of reduction necessary, the extent of efforts to be taken to reduce pollutant discharges and perhaps most importantly, no basis for assessing the most cost-effective reductions that could be made within a watershed. In short, this iterative approach, while important, could be very counterproductive and costly, requiring an individual municipality to unnecessarily expend effort and money for very little benefit while other sources of the pollutants go unregulated or could be significantly reduced with far less cost.

Page 27 of 60. Part 2.3.4.2(a) provides that illicit discharges to the MS4 are prohibited and "any such discharge violates this permit and remains a violation until eliminated." It is important that illicit discharges to an MS4 be prohibited. However, the MS4 permittee should not immediately bear the burden, and potential liability, of such discharges. A municipality is required to implement an IDDE program, to find and eliminate such discharges, and actively seek to prohibit such discharges. Absent an illicit discharge from a municipality owned source, the MS4 permittee may have no control over, or immediate knowledge of, an illicit discharge. This section puts the MS4 permittee in non-compliance even though it cannot practically control such discharges, at least initially. A better approach would be to require an MS4 permittee, as is done in the permit, to make efforts to find and eliminate discharges as soon as possible. If an MS4 permittee finds an illicit discharge and does not seek to eliminate the discharge as soon as practicable, then it should be considered a violation of the permit. But, if an MS4 permittee is doing everything required under the IDDE program, it should not be held responsible for uncontrollable non-stormwater discharges. While EPA presumably could exercise its discretion to enforce section 2.3.4.2(a), nothing prevents a third party suing for a violation of this permit condition.

Appendix H. Appendix H (bottom of Page 3) appears to require the MS4 municipality to regulate the management of salt application on privately maintained facilities and private streets that drain to the MS4 without the authority enabled by New Hampshire statute. Requiring the municipality to ensure that private parking lot owners and operators and private street owners and operators are using trained and certified commercial salt applicators and that they report their annual salt usage without the enabling state legislation is questionable policy that cannot be expected to produce accurate or reliable results. A program of this nature would have greater likelihood of producing the desired results if conducted and regulated at the state level.

Appendix H. Attachment 1 describes how a permittee can calculate load reduction credits for certain structural BMPs (Table 4-3) and illicit connection removal. Although it is stated that this accounting is for informational purposes only at this stage of the permit, we feel that the permittee should be allowed to take credit for other structural and non-structural load reduction activities and BMPs beyond this limited list. For the structural BMPs, the treatment credits are grouped into only two types of BMPs: runoff reduction and stormwater treatment. These limited categories generalize the treatment potential of each BMP and do not account for the actual processes of a given BMP and a given design of that type of BMP. The curves

provided do give a range of performance based on BMP relative sizing, but only accounts for the relative sizing based on contributing impervious area. We feel this misrepresents the treatment of runoff from pervious areas when combined with that contributed from impervious surfaces or in the case where BMPs are used to treat runoff solely from pervious areas (e.g. agricultural areas, lawns, etc). In addition, the methodology provided as a work around to calculate performance when pervious areas are contributing to the BMP is difficult and time-consuming and requires the permittee to calculate treatment for each BMP individually instead of using cost-effective measures like look-up tables or automation.

In addition, Appendix H does not include provisions for the permittee to use alternative methods to calculate BMP performance by developing a long-term simulation modeling approach, as Appendix F does for calculating phosphorus treatment.

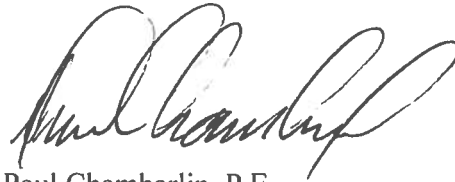
Appendix H. Attachment 1 describes how a permittee can calculate nitrogen loads for their contributing drainage areas. This methodology includes accounting for only two land covers/land uses: pervious and impervious. The equivalent methodology for phosphorus load calculations (Appendix F) includes a more detailed accounting of loads from not only different land uses, but also impervious and pervious land covers within those land uses. We feel this same level of detail should be applied to the nitrogen load calculation methodology.

Please do not hesitate to contact us if you have any questions or to discuss these comments, and we look forward to receiving your responses.

Sincerely,

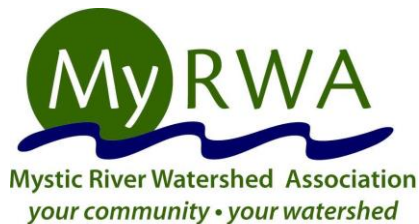


David Cedarholm, P.E.
Durham Town Engineer



Paul Chamberlin, P.E.
UNH Associate Vice President for Facilities

cc: Todd Selig, Town Administrator (via email)
Michael Lynch, Director of Public Works (via email)
James Dombrosk, Director of Energy and Utilities (via email)
William Taylor, Esq., Pierce Atwood (via email)



August 15, 2013

Newton Tedder
US EPA – Region 1
5 Post Office Square – Suite 100
Boston, MA 02109

RE: Draft Small Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) general permit for New Hampshire

Dear Mr. Tedder,

The Mystic River Watershed Association (MyRWA) appreciates the opportunity to comment on the draft MS4 NPDES permit for New Hampshire. MyRWA is a non-profit organization dedicated to the preservation and enhancement of the Mystic River Watershed, made up of 22 communities in the greater Boston region. As a clean water advocacy group in neighboring Massachusetts, we are interested in the approval of the New Hampshire permit because we believe it will generate positive momentum and ultimately contribute to the approval of the next Massachusetts MS4 permit.

MyRWA supports the new draft MS4 permit for New Hampshire. This permit builds on the progress achieved by New Hampshire's current MS4 permit, and will bring the state's waters closer to meeting the swimmable and fishable goals of the Clean Water Act (CWA). Though the 2003 permit made advancements in water quality, many waters have been left impaired. Polluted stormwater runoff is a leading cause of surface water impairment, as pesticides, fertilizers, oils, road salt, litter, debris and sediment are introduced into waters via MS4 discharges. These pollutants can deprive communities of full use of valuable surface water resources by discouraging recreational enjoyment, degrading aquatic habitat, and contaminating drinking water supplies. Additionally, polluted runoff is one of the country's only growing sources of water pollution.

The new permit directly addresses these issues, while maintaining flexibility to allow municipalities to implement non-structural BMPs and meet other requirements in ways that will reduce the associated financial burdens. As coastal states, New Hampshire and Massachusetts both have strong interests in the 28.3 million jobs that depend upon clean coastal and marine waters. Protecting surface waters from polluted runoff simply makes good economic sense. Further, the requirements in the final draft have been relaxed from prior drafts in a way that strikes a fair and equitable balance between the goals of the CWA

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Newton Tedder, US EPA – Region 1

August 15, 2013

Page Two

and the current fiscal realities faced by many cities. As a result, the new permit will contribute to a vibrant New Hampshire while presenting costs that are fairly and proportionately measured to the vitally important environmental and economic benefits.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Ek OngKar Singh Khalsa', with a long horizontal stroke extending to the right.

Ek OngKar Singh Khalsa, Executive Director

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Mr. Newton Tedder,
Wright-Pierce would like to submit the following comment on the 2013 Draft MS4 Permit for New Hampshire.

According to Part 2.2.2 Discharge to an Impaired Water without an Approved TMDL, the permittee would be required to address such discharges with an iterative approach that incorporates three phases over the course of the permit term. This three phased approach includes: (1) preliminary evaluation and source identification, as well as BMP identification/selection; (2) implementation of BMPs and finalization of source identification; and (3) assessment and modification of BMPs, if needed. It is our understanding that Phase 1 of this approach shall include the development of a Water Quality Response Plan (WQRP) as outlined in Part 2.2.2.a.ii.

It appears that a WQRP is very similar to elements of a Watershed Management Plan. Is it true that if a regulated Small MS4 Community was planning to develop a Watershed Management Plan, they would be precluded from receiving 319 funding to do so because it would be fulfilling portions of their Small MS4 General Permit requirements? If so, is this an unintended consequence of the permit language and is there anything that can be done to avoid it? It would be a shame to knowingly limit the potential funding sources available to regulated Small MS4 Communities when the cost to implement the Small MS4 General Permit is already a burden on municipal budgets.

Please let feel free to contact me if you have any questions or require any additional information from us at this time. We appreciate the opportunity to submit comments on this draft permit and thank you for your time in review/response.

Regards,
Lyndsay

Lyndsay R. Butler P.E. | Project Engineer

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May 28, 2013

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RE: Proposed New Hampshire MS4 General Permit

Dear Mr. Tedder:

Although we are located in Massachusetts, the Neponset River Watershed Association (NepRWA) would like to comment on your draft MS4 permit for the State of New Hampshire. It is our understanding that comments on the New Hampshire proposal may well impact the Massachusetts MS4 permit proposal, which is scheduled for later this year.

NepRWA believes that overall, the 2013 proposal is a great improvement over the current 2003 permit, containing much greater specificity to guide MS4s on what they need to do to stay in compliance. It is also significantly better than the 2008 and 2010 MS4 proposals for New Hampshire and Massachusetts, respectively. If fully implemented, the permit should result in much improved water quality in areas with MS4s. We strongly support the final adoption of this proposal, although we have some suggestions listed in the Section by Section analysis, below.

Other than the MS4 municipalities themselves, watershed associations and local environmental organizations are frequently in the best position to provide information relevant to the implementation of the MS4 permit. The General Permit should establish a formal procedure whereby a third party may submit such information. For example, Section 1.4, "Allowable Non-Stormwater Discharges," states that if "the permittee, EPA or the state agency identifies any category of non-stormwater discharge in Part 1.4.a-r as a significant contributor of pollutants to the MS4, , then that category is not allowed under Part 1.4, but rather shall be deemed an 'illicit discharge' under Part 2.3.4.1." Watershed organizations and other third parties could be useful in providing information that would assist any of these three parties make such a determination.

Section-by-Section Analysis.

Section 1.0 Introduction

1.7.2 and Appendix E, Notice of Intent (NOI). NepRWA strongly supports the inclusion of the proposed electronic NOI in the final MS4 general permit. This is critical if watershed associations (as well as EPA and other interested parties) are to know the extent of compliance with the General Permit by each town. We would request that:

- NOIs be placed on the EPA website, available for public viewing;

- EPA develop (if it hasn't done so already) a reporting tool for the NOI data base so that, for example, watershed associations can compare the NOIs of the various towns in their watersheds;
- MS4s be *required* to use (or at least be made to show cause why they shouldn't be required to use) the electronic NOI, rather than allowing them to submit an NOI that "contains the information" identified in Appendix E. Our experience in Massachusetts with NOIs and Annual Reports submitted under the 2003 MS4 permit is that very few MS4s are addressing all of its provisions, even though the permit requires that they do so. As we understand how the electronic NOI will function, MS4s will not be able to skip any of the listed items before going on to the next. Having only some NOIs filed electronically would make it much more difficult for watershed associations and EPA itself to compare the progress and compliance rates of various towns.
- EPA develop at an appropriate time electronic forms for Annual Reports and, if possible, for SWWPs, Water Quality Response Plans, and IDDE programs, and post them on line.

Section 2.0 Non-Numeric Effluent Limitations

Section 2.1 Water Quality Based Effluent Limitations and 2.2 Discharges to Impaired Waters.

We strongly believe that EPA should identify in the permit or in guidance those BMPs that are effective at reducing various pollutants of concern. *See, for example, our organization's draft Guidance on effective bacteria BMPs (attached).*

We don't believe that the requirements of 2.1 and 2.2. (although excellent additions to the 2003 permit) will necessarily reduce pollutants to the "maximum extent practicable" in every case. The "additional" BMPs in Section 2.2.2.a.ii.(b)2. are not a comprehensive list. Although that subsection only covers the first year (Phase 1) of the permit, even the requirements in the subsections for Phase 2 and 3 do not provide any specific additional BMPs except for retrofit BMPs in Phase 3. Our comments on Section 2.2.2.a.ii.(b), below, suggest some additional BMP possibilities.

2.2.1 and Appendix F: Discharges Subject to an Approved TMDL.

We are not familiar with the data on which the bacteria discharge limits and percentage reductions contained Table F-1 of Appendix F are based, so we cannot comment on them. We would note that Section 2.2.1.(b) states that discharges subject to a TMDL must comply with Part 2.2 (which includes 2.2.2 on "discharges to waters *without* TMDLs"). Appendix F also says that MS4s subject to a Bacteria TMDLs must comply with 2.2.2. Therefore we believe that *the title of Section 2.2.2. needs to be changed to "Discharges to all Impaired Waters."* Without a different title it is unlikely that all MS4s subject to Bacteria TMDLs (which is most MS4s in NH) will think the section applies to them.

2.2.2 Discharges to an Impaired Water without an Approved TMDL. See comments directly above regarding the title of this subsection. Because the requirements of Phase 1 must be completed within one year of the permit effective date, EPA should stress to MS4s that work on Phase 1 should begin as soon as their NOIs are submitted for approval. *Indeed*, a chronological list of all of the permit's requirements would be extremely useful to help MS4s develop implementation schedules.

Section 2.2.2.a.ii.(b)2. should be require that permittees, to the maximum extent practicable, implement as many of the listed BMPs as are necessary to demonstrate that they are not contributing to a violation of a water quality standard or a TMDL WLA. In the case of development/redevelopment requirements (subsection c), we

believe that listed BMPs should be mandatory unless the permittee shows in an NOI or Annual Report why they are not appropriate due to special circumstances. At a minimum, this should apply to MS4s discharging to waters with TMDLs.

Additional BMPs that we believe should be listed under 2.2.2.a.ii.(b)2 are:

Under c) for development/redevelopment ordinances:

- lists of BMPs which are, in fact, effective at reducing various pollutants of concern; see, for example, the draft guidance compiled by NepRWA on effective bacteria BMPs (attached);
- application of stormwater standards to areas disturbing 5,000 square feet or more (the proposed NH permit says “less than one acre.”);
- larger fines and increased funding for enforcement;
- a bylaw provision establishing a stormwater utility with fees (for new and existing development) based on the amount of impervious surface (fee could be a small, standard amount for single family homes);
- requiring that roof downspouts do not discharge to impervious surfaces;
- a provision forbidding existing large impervious areas (such as shopping centers and supermarkets) to discharge to an MS4 without retrofitting with stormwater BMPs, to the maximum extent practicable.

Under d) for Good Housekeeping and Pollution Prevention, the BMP list should include use of more effective street sweeping technologies such as vacuum or regenerative air.

Under f) Structural BMP retrofits, the list should include requiring businesses with large impervious areas to pay for at least a portion if not all required retrofits that reduce runoff going to an MS4.

Section 2.3 Requirements to Reduce Pollutants to the Maximum Extent Practicable.

Although the “additional BMPs” referenced in Section 2.2.2.a.ii.(b)2., discussed directly above, cross references the minimum control measures identified in Section 2.3, Section 2.3 does not cross reference the “additional” BMPs listed in Section 2.2.2. Because Section 2.3 covers the minimum control measures that exist in the 2003 NH MS4 permit, while the requirements of 2.2.2 are almost entirely new, *cross referencing in Section 2.3 is essential* to ensure that MS4s discharging to impaired waters consider all the listed BMPs that are reasonably available.

Section 2.3.2. Public Education. We appreciate the suggestion in the new proposal that permittees partner with watershed associations on public education, something our watershed association has been doing very successfully. On the other hand, we have sympathy with towns which testified at the Public Hearing that they were not clear how they are expected to show evidence of progress being made toward achieving their defined educational goals. More guidance needs to be issued on how permittees are expected to do this.

2.3.2 says that the ultimate objective of public education is to increase knowledge and change behavior of the public. This should be clarified to indicate that one of the

behaviors the public may be encouraged to take is to support efforts by their town to adequately fund stormwater management activities.

Section 2.3.4 IDDE.

- 2.3.4.3 Non-Stormwater Discharges. As noted above, there ought to be a procedure whereby third parties are given the opportunity to identify the listed sources as significant contributors of pollutants.
- 2.3.4.4 SSOs. We strongly support this proposal to beef up SSO reporting requirements. We believe that SSOs are currently underreported by a wide margin (at least in our Massachusetts watershed). However, the time allowances for reporting in subsection c are unreasonably long; oral notice can easily be given within 6 hours and written notice within 3 days after the permittee has become aware of the SSO. EPA should also establish a “hot line” on which the public may report SSOs.
- 2.3.4.6. *System mapping.* The required mapping elements listed in subsection a.i. are excellent. Under subsection b., we believe that digital mapping should be required, at least by the end of Year 2 of the permit. Our understanding is that an inventory of outfalls should already have been developed under the 2003 permit and that annual updating should be all that is required. No additional time should be allowed for meeting the requirements of the 2003 permit. The permit should also specify that this information be available digitally within a reasonable time (e.g., end of Year 2).
- 2.3.4.8. *IDDE Program* and 2.3.4.9 *IDDE Program Implementation Goals & Milestones.* Section 2.3.4.8 sets a 1 year deadline for developing a written IDDE program that includes 8 program elements listed in subsections a.-h. Each MS4’s IDDE program should be digitized and made available to the public.

It is not clear in Section 2.3.4.8. or 2.3.4.9 whether implementation of each of the 8 program elements must be completed before moving on to the next listed element. Furthermore, Section 2.3.4.9. does not, as it should, include milestones for completing all eight elements listed in 2.3.4.8., which is necessary in order to evaluate the milestones of each individual element. The proposed NH MS4 permit establishes milestones only for the following elements listed under 2.3.4.8:

- *a. Legal Authority* – no milestones
- *b. Statement of IDDE Program Responsibilities* – no milestones
- *c. Assessment and Priority Ranking of Catchments* – no milestones
- *d. Outfall and Interconnection Screening and Sampling.* Sec. 2.3.4.9 a. sets a deadline for completion of dry weather screening and sampling of non-Problem Catchments. For other aspects of outfall screening and sampling, Sec. 2.3.4.9.b. refers to milestones (deadlines) listed under 2.3.4.9.c., but those milestones refer to the Catchment Investigation Procedure, not Outfall Screening and Sampling. There are no deadlines, for example, for wet weather screening/sampling or for dry weather screening/sampling of problem catchments, as there need to be. The requirement in 2.3.4.8. that wet weather screening may only be done from March – June is unreasonable

and unnecessary. We believe that 25% percent of wet weather screening should be completed each year during years 2 – 5 of the permit.

- *e. Catchment Investigation Procedures.* There are milestones for this element in 2.3.4.9. c., but the adequacy of those deadlines is dependent on how long it will take to complete the preceding elements of the IDDE program (2.3.4.8.a.-d.). Furthermore, MS4s should complete the Procedure in the first 3 years for the catchments with the most serious problems, as indicated by dry weather screening. Only those with the least serious problems should be put off for years 4 and 5.
- *f. Removal and Confirmation.* Section 2.3.8.4 states only that “within one year of removal of all identified illicit discharge and SSO sources, confirmatory ... screening shall begin,” but sets no deadline for its completion of the removal phase.
- *g. Follow up Screening.* Deadlines are included in Section 2.3.4.8.
- *h. Illicit Discharge Prevention Procedures.* No milestones established.

Finally, it would be much easier for MS4s to meet whatever “milestones” are set for each IDDE program element if each individual MS4 weren’t required to establish its own procedures for outfall screening and catchment investigations. EPA should itself adopt model procedures for these activities.

Sections 2.3.5 and 2.3.6. (Construction site and post-construction stormwater management). These subsections are not sufficiently clear about what should be included in a town’s “ordinance or regulatory mechanism.” Most of the subsections of 2.3.6 require that permittees have a “program” containing certain requirements, not that these requirements need to be authorized by ordinance. Also, municipal ordinances should specifically give the MS4s the authority to enforce operation & maintenance agreements to which the town may not be a party and to levy fines for violations of their ordinance.

We are happy to see that EPA in Section 2.3.6.6 – 2.3.6.8 recognizes that many municipal bylaws, regulations, rules and design standards – not just those contained in Stormwater Bylaws – greatly impact the implementation of proper stormwater management. We believe that EPA should at least encourage towns to identify a single municipal Stormwater Manager whose job it would be to coordinate with all municipal Boards and Departments that have rules impacting stormwater. EPA should also provide, in the permit or in guidance issued pursuant to the permit, a list of the many available “Checklists” MS4s can use to evaluate the stormwater impacts of municipal zoning ordinances, construction codes, subdivision regulations, street and parking requirements, etc.

If the MS4 discharges to an impaired water and if it isn’t clear how long this condition will continue, its ordinance should include authority to implement the “additional” measures” contained in 2.2.2.a.ii.(b)2.c) and 2.2.2.a.ii.(e). It is particularly important that such town ordinances or regulations “require the use of BMPs effective at reducing the pollutants of concern in development/redevelopment within the MS4 area.”

2.2.6.6. Directly Connected Impervious Area. The proposed subsection has a lot of planning, identifying, and prioritizing, but does not appear to actually mandate that any retrofitting be implemented. It is even unclear whether retrofits are required if a town is unable to demonstrate, after implementation of other BMPs, that they are

not causing or contributing to the violation of a water quality standard (see Section 2.2.2a.ii.(b)2.f)). Surely such retrofitting should be required in that circumstance.

Thank you very much for the opportunity to comment on this proposed permit.

Sincerely yours,

Steve Pearlman
Advocacy Director

ATTACHMENT

ATTACHMENT A

Neponset River Watershed Association
Model Stormwater Management Bylaw
Total Maximum Daily Load (TMDL) Provision

Guidance on Best Management Practices for Reducing Pathogen (Bacteria) Pollution in Stormwater

Pathogen (Bacteria) Reduction Requirement

In order to comply with an applicable Bacteria TMDL(s), [TOWN NAME HERE] requires that permit applicants under the TOWN NAME HERE Stormwater Bylaw treat the first inch of runoff from all impervious areas, referred to as the “one in water quality volume,” using Best Management Practices (BMPs) capable of adequately reducing pathogen concentrations.

All references below to the “MassDEP Stormwater Handbook” or “the Stormwater Handbook” or “the Handbook” refer to the 2008 edition of the Massachusetts Stormwater Handbook as published by the Massachusetts Department of Environmental Protection, or to the equivalent section of subsequent editions of that publication.

Demonstrating Compliance with Pathogen Reduction Requirement

Demonstrating compliance with the TOWN NAME HERE pathogen reduction requirement is a *four step process*. As described in greater detail below, all applicants must:

- 1) demonstrate that they have evaluated and implemented *environmentally sensitive site design and low impact development techniques* to minimize the volume of runoff being created and reduce or eliminate the volume being conveyed to discharge via closed drainage systems;
- 2) *infiltrate or evaporate* any remaining portion of the one inch water quality volume which is not fully addressed through step 1;
- 3) to the extent that unusual site-specific constraints make it infeasible to address all of the remaining one inch water quality volume as outlined in Step 2 above, utilize *other “Pathogen-Effective” BMPs described below* to treat any portion of the one inch water quality volume not addressed in Step 2; and
- 4) demonstrate that they have incorporated specific *pollution prevention measures* into their required stormwater operation and maintenance plans.

Step 1: Environmentally Sensitive Site Design and Low Impact Development BMPs

Thoughtful site design which minimizes impervious cover and “disconnects” impervious surfaces (i.e. that direct runoff onto appropriately sized pervious areas rather than into hard piped conveyance systems) can dramatically reduce or even eliminate the volume of runoff that would otherwise need to be addressed with more expensive structural BMPs. Such techniques are often described collectively as “low impact development” or “LID.” Examples include:

- Minimizing street and driveway widths, reducing street lengths with cluster design, shared driveways, reduced front yard setbacks, single sidewalks, vegetated cul-de-sacs, and structured parking.
- Replacement of impervious surfaces with porous alternatives.
- Preservation of existing vegetation, and avoidance of soil compaction.
- Designing impervious areas to drain onto adjacent lawns, parking lot islands, rain gardens and other porous surfaces, rather than directly into catch basins.
- Green roofs.

The MassDEP Stormwater Handbook (see Volume 3, Chapter 1, beginning on page 42) lays out criteria and procedures for computing credits for specific site design and low impact development BMPs. These credits may be used to reduce or even eliminate the runoff volume to be treated in Steps 2 and 3.

Step 2: Infiltrate or Evaporate the Remaining Water Quality Volume

That portion of the first inch of runoff which has not been addressed using better site design and low impact development credits should be captured and disposed of through the use of infiltration BMPs, rainwater reuse or other measures that result in evaporation or consumptive use on site.

Note: Different sources may use similar sounding names to refer to different BMPs. Throughout this document we have used the same terminology to describe each BMP as found in the MassDEP Stormwater Handbook. In some cases, names given to a BMP in other reference sources are given in parenthesis, along with any specific design requirements for TOWN NAME HERE.

Before discharging runoff from paved areas (excluding roofs) to infiltration practices, pretreatment must achieve 44% reduction of Total Suspended Solids (TSS), or 80% when using field-dynamic sizing.

The various types of infiltration BMPs, along with procedures for designing and sizing these BMPs, are outlined in the MassDEP Stormwater Handbook (Volume 2, Chapter 2). These ***infiltration BMPs*** include:

- Infiltration basins (Handbook page 86).
- Infiltration trenches (Handbook page 94).
- Infiltrating dry water quality swales (also referred to as infiltration swales; size swale to infiltrate the WQ volume; Handbook page 78).
- Subsurface infiltration structures (Handbook page 103).
- Dry wells (Handbook page 84).
- Leaching catch basins (only when each leaching catch basin is paired with a traditional off-line, deep-sump catch basin; Handbook page 100).
- Porous asphalt, porous concrete and porous pavers (Handbook page 118).
- Rain gardens and infiltrating bioretention cells (Handbook page 23).

The above practices must be sized separately for each catchment area, using the one inch water quality volume (or the remainder thereof after LID credits). Because the objective is water quality treatment rather than groundwater recharge, capturing and recharging an increased depth of rainfall from only a portion of the site (i.e. recharging 2" of rainfall from 50% of the impervious area rather than 1" from 100% of the impervious) is not acceptable for compliance with the water quality treatment requirement.

Step 3: Treat Remaining Water Quality Volume Using other Bacteria Pathogen-Effective BMPs

Infiltration and evaporation are the only stormwater management BMPs which have demonstrated the ability to consistently meet the pathogen reduction targets of the TMDL(s) applicable to TOWN NAME HERE. Where unusual site constraints make it infeasible to infiltrate all of one inch water quality volume remaining after LID credits, applicants shall use one of the "Pathogen Effective" BMPs described below to treat the remaining water quality volume that is not fully addressed in Step 2.

The Pathogen Effective BMPs listed below are presumed to meet the pathogen TMDL requirements of the TOWN NAME HERE Stormwater Bylaw only when infiltration is not feasible and when the BMPs are sized to treat the remainder of the one inch water quality volume in accordance with the guidelines in the MassDEP Stormwater Handbook regarding applicability, design, sizing, pretreatment, construction and maintenance. Any specific design requirements for Town Name Here are noted in parenthesis.

Pathogen Effective BMPs include the following specific practices:

Filtration Practices

- Filtering bioretention cells (when furnished with an underdrain; Handbook page 23).
- Filtering dry water quality swales (the WQ volume is retained, filtered and discharged via an underdrain; also sometimes referred to as bioretention swales or biofilter swales; not to be confused with drainage channels or grassed channels; Handbook page 78).
- Sand and organic filters, including tree filter boxes (underdrains should not discharge to a catch basin sump; alternate configurations are sometimes known as tree pits, tree channels, green gutters, or stormwater planters; Handbook page 57).
- Porous pavements (although normally used as an infiltration practice, porous pavements can also be utilized as a filtration practice when provided with an appropriate reservoir/filter course and underdrain; Handbook page 118).

Constructed Stormwater Wetlands and Wet Basins

- Shallow marsh wetlands (Handbook page 38).
- Pocket wetlands (Handbook page 41).
- Basin/wetland systems (Handbook page 39).
- Extended detention wetlands (Handbook page 40).
- Gravel wetlands (may arguably be considered a filtration practice; Handbook page 47).
- Wet basins (with appropriate permanent pool volume and length to width ratio; Handbook page 63).
- Wet water quality swales (not to be confused with drainage channels or grassed channels; Handbook page 79).

Alternative Best Management Practices

If an applicant would like to use a BMP not discussed above which it believes is effective at reducing pathogen pollution, the applicant should submit appropriate technical documentation demonstrating the effectiveness of the proposed BMP for consideration by the NAME OF STORMWATER AUTHORITY HERE. Performance information should include third-party testing.

Pathogen-Ineffective Best Management Practices

Many conventional BMPs are ineffective at removing pathogens and dissolved pollutants, and may substantially exacerbate pathogen concentrations in stormwater runoff. While some of these BMPs may play an important role as pre-treatment or volume-control BMPs, they are not considered effective at removing pathogens on their own, nor should they be used as the terminal BMP in a treatment train.

These pathogen-ineffective BMPs include:

- Catch basins, which increase pathogen concentrations. Treated effluent from a Pathogen-Effective BMPs should never be routed through a catch basin.
- Oil and grit separators, and proprietary separators (including particle separators and hydrodynamic separators).
- Sediment forebays.
- Rock lined swales, drainage channels, and grassed swales designed for conveyance rather than water quality. These conveyance practices should not be confused with dry and wet water quality swales, which are designed to retain and treat the water quality volume through media filtration, infiltration or permanent ponding as further described in the MassDEP Stormwater Handbook.

- Dry detention basins, and extended dry detention basins (though in some cases these BMPs may be reconfigured as wetland detention basins which are Pathogen-Effective).

Redevelopment Projects

If an applicant for a redevelopment project wishes to assert that site conditions do not allow the one inch water quality volume to be fully addressed using one or more of the BMPs outlined in Steps 1-3 above, the applicant must submit a narrative justification explaining what specific BMPs were considered and why they could not be implemented. The justification must be prepared at a sufficient level of detail to enable the NAME OF PERMITTING AUTHORITY to make a determination as to the credibility of the assertion and should, at a minimum, address the following points:

- Describe what site design and low impact development BMPs are utilized to reduce the quantity of runoff generated. If there are catchment areas for which no such BMPs are utilized, or for which only a portion of the catchment is managed using such BMPs, describe which site design and low impact development BMPs were considered and why they were deemed infeasible.
- Describe what infiltration and/or evaporation BMPs are used to treat the remainder of the one inch water quality volume. If there are catchment areas where no infiltration/evaporation BMPs are proposed, or where such BMPs treat less than the required water quality volume, describe for each such catchment area why each of the infiltration/evaporation BMPs listed above could not be implemented, addressing site constraints such as tight soils, shallow groundwater, contaminated soils or bedrock. Discuss what measures were considered that would at least partially meet the infiltration requirements. For each such catchment area, identify the remaining portion of the one inch water quality volume to be treated using pathogen-effective BMPs.
- If there are catchments where none of the Pathogen-Effective BMPs listed above are proposed, or where the full remaining water quality volume is not treated with Pathogen-Effective BMPs, describe what portion of the water quality volume is not fully treated, why site conditions don't permit each of the Pathogen-Effective BMPs listed above to be implemented, and what measures were considered that would at least partially meet the pathogen requirements.

Step 4: Pathogen Effective Pollution Prevention Measures

In addition to the structural and non-structural (LID) BMPs outlined above, all applicants must address pollution prevention practices targeting pathogens in their required Operation and Maintenance Plan. Pollution prevention practices vary widely depending on the use of a site. Some pollution prevention practices which are effective at reducing pathogens include:

- Regular street sweeping, particularly when more efficient vacuum sweeping equipment is used.
- Frequently patrolling paved and unpaved areas to remove litter, garbage and pet waste.
- Minimizing the use of water or pressure washers to clean paved surfaces.
- Ensuring that dumpsters are kept under cover (i.e. not exposed to rainfall or, if outdoors, are located away from directly connected paved areas and/or kept tightly sealed).
- Educating site users (employees, customers, residents) about appropriate pest waste management through signage, educational literature, installation of mutt-mitt stations or other measures.

- Educating site users (employees, customers, residents) not to dump anything into catch basins (i.e. pet waste, wash water, etc.) through signage, storm drain markers and informational literature or training activities.
- Discouraging concentrations of waterfowl, vermin and other wildlife through proper management of garbage, and educating site users not to feed wildlife.
- Inspecting all storm drain outfalls at least annually for indicators of potential illicit connections of sewer or septic flow to the storm drain system. Indicators include outfalls with odors, heavy algae growth, white or gray sediments, or flow during periods of dry weather. Follow up tests should be performed promptly on any suspicious outfalls.

Dear Mr. Tedder,

We are very supportive of the **EPA's proposed NH MS4 general permit and would like it implemented in Massachusetts.**

Sincerely,
Judy Grinnell

Judith Grinnell, President
Hoosic River Revival
P. O. Box 434
North Adams, MA 01247

Mr. Newton Tedder
 US EPA—Region 1
 5 Post Office Square—Suite 100
 Mail Code—OEP06-4
 Boston, MA 02109-3912

July 11, 2013

Reference: Docket No. **EPA_FRDOC_0001-13915** “New Hampshire Draft Small Municipal Separate Storm Sewer System NPDES General Permit”

Dear Mr. Tedder,

IDEXX respectfully recommends additions at **Appendix G** of the *New Hampshire Small MS4 Permit Monitoring Requirements For Discharges into Impaired Waters - Parameters and Methods* to include three additional US EPA-approved methods:

- Colilert® and Colilert-18 for *E. coli* compliance monitoring and
- Enterolert® for enterococci compliance monitoring.

All three methods utilize the same IDEXX Quanti-Tray® or Quanti-Tray®/2000 for enumeration.

IDEXX methods are EPA approved and listed at 40 CFR 136.3, as are the methods currently listed in the proposed revised MS4 permit in **Appendix G**.

The addition of Colilert, Colilert-18 and Enterolert in the proposed revised MS4 permit, **Appendix G**, will allow facilities to have:

- faster results (18-24 hours as opposed to 48-72 hours)
- less complicated training
- stringent *but far less complicated* quality control procedures
- more cost effective testing methods; the IDEXX methods can be used for compliance monitoring under all EPA water-based programs including: wastewater, ambient water and drinking water programs

Currently **Appendix G** appears as:

<i>E. coli</i>	<i>E. coli</i>	1103.1; 1603
Enterococcus	Enterococcus	1106.1; 1600

We suggest the following additions to **Appendix G**:

<i>E. coli</i>	<i>E. coli</i>	1103.1; 1603; Colilert/Quanti-Tray ; Colilert-18/Quanti-Tray
Enterococcus	Enterococcus	1106.1; 1600; Enterolert/Quanti-Tray

We appreciate the opportunity to comment on the "New Hampshire Draft Small Municipal Separate Storm Sewer System NPDES General Permit" and look forward to a positive response to our recommendation to include additional EPA approved IDEXX methods for compliance monitoring of both *E coli* and enterococci in Appendix G.

Thank you for your attention and consideration.

Respectfully submitted,



Patsy Root

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cc Manja Blazer, Senior Manager, Government Affairs & Market Development
cc Ms. Thelma Murphy, US EPA Region 1, Regional Storm water Coordinator & MS4 Program
cc Jeff Andrews, New Hampshire Department of Environmental Services



May 13, 2013

Newton Tedder
US EPA– (OEP06 - 4)
5 Post Office Square – Suite 100
Boston, MA 02109 - 3912

RE: 2013 Draft New Hampshire Small MS4 Permit

Dear Mr. Tedder,

The Nashua River Watershed Association (NRWA) is writing to express support for the EPA's 2013 Draft New Hampshire Small MS4 Permit. NRWA's Water Monitoring Program has been routinely collecting data on water quality from streams and rivers in New Hampshire and Massachusetts for the past 20 years. The data have clearly demonstrated the damaging effects stormwater runoff has on water quality. Bacteria levels spike, water clarity declines, and temperatures rise in critical cold water fisheries. A marked decline in water quality is always evident immediately after a storm, and the effects can linger for several days.

It is because of this that the NRWA supports the Draft NH Small MS4 Permit, with the hope that the improvements in stormwater treatment practices will halt the degradation of streams and rivers throughout New Hampshire.

Thank you for allowing us to comment on this draft permit.

Sincerely,

A handwritten signature in blue ink that reads "Martha A. Morgan".

Martha Morgan
Water Programs Director



Massachusetts Coalition for Water Resources Stewardship

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Robert E. Ward
Deputy Director, City of Haverhill
Department of Public Works

August 15, 2013

Newton Tedder
US EPA—Region 1
5 Post Office Square, Suite 100, Mail Code—OEP06-4
Boston, MA 02109-3912

RE: Comments on NH Small MS4 Draft General Permit

The Massachusetts Coalition for Water Resources Stewardship (MCWRS) appreciates the opportunity to comment on the Draft Small MS4 permit for New Hampshire. We understand that the US Environmental Protection Agency (EPA) intends to issue a draft permit for Massachusetts communities, which is very similar to New Hampshire's; therefore, our comments are relevant. We want to provide EPA with these comments not only to improve the permit for New Hampshire communities, but to also ensure the requirements are reasonable and sustainable for Massachusetts communities when the draft permit is issued in our state.

MCWRS is a nonprofit organization committed to promoting watershed-based policies and regulations that effectively manage and conserve water resources. MCWRS is unique in its focus on protecting municipalities' interests in an ever changing regulatory environment. We promote using scientifically based, fiscally responsible approaches to realize environmental and community goals. Members include municipalities; public agencies that transport and treat drinking water, wastewater and stormwater; quasi-government agencies; and private organizations whose members are committed to the principles of stewardship and sustainability in protecting the environment and public health.

General Comments:

- While the goal of the Clean Water Act is laudable and MCWRS fully supports the goal, MCWRS considers the requirements in the Small MS4 permit burdensome and some will not achieve the goal of clean water.
- The schedules set forth in the draft permit are not reasonable or feasible when considered in the context of municipal realities. For instance, the 5 year timeframe for completing the required Best Management Practices (BMPs) is unreasonable.
- The permit, as drafted, would create a significant administrative burden for municipalities that would detract from their ability to provide direct benefits to water

quality through such concrete activities as increased street sweeping, increased catch basin cleaning and removal of illicit discharges. This permit's burden needs to be considered along with CSO, CMOM and other regulatory requirements.

- Many of the deadlines provided in the draft permit do not allow sufficient time to allocate funding within set municipal budget cycles to complete the tasks required. Creating a separate fund for stormwater adds significantly more time. Without a stormwater utility, many municipalities simply do not have enough money. No item in the permit should be required to be completed during the first permit year.
- The draft permit would require compliance with Total Maximum Daily Load (TMDL) immediately, or no later than the date set forth in the TMDL. This approach is not consistent with the CWA provisions relating to the MS4 general permit and would likely result in immediate non-compliance upon issuance of the permit.
- The draft permit holds the MS4 permittee liable for illegal acts/discharges from a third party, such as individuals, industries, neighboring municipalities, and state or federal agencies. The permit should be modified or clarified not to hold the permittee liable for the third party stormwater contributions.
- New and additional stormwater flow to impaired waters regardless of concentration would be prohibited under this draft permit. This requirement presumes that the added discharge causes or increases the impairment without any sampling or confirmation of the possible impairment.
- How will EPA to credit municipalities for stormwater BMPs that have already been installed?

Section-Specific Comments:

Section 2.1 Water Quality Based Effluent Limitations and 2.1.1 Requirement to Meet Water Quality Standards: Section 2.1 (page 13) states that “Pursuant to Clean Water Act Section 402(p)(3)(B)(iii), this permit includes provisions to ensure that discharges from the permittee’s small MS4 do not cause or contribute to exceedances of water quality standards...”. The cited section of the Clean Water Act makes no mention of water quality standards. Instead, it establishes Maximum Extent Practicable (MEP) as the standard to which pollutants must be removed from municipal MS4s. The language in section 402(p)(3)(B)(iii) of the Act is clear that MEP governs pollution control requirements for municipal stormwater discharges. Section 402(p)(3)(B)(iii) of the Act states that controls to reduce the discharge of pollutants to the MEP include management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator determines appropriate for the control of pollutants. The “such other provisions” clause is within the broader context of the MEP standard, not separate from it as EPA tries to imply. The proper wording throughout the permit that would be consistent with the Act would be for the permittee to meet water quality standards to the maximum extent practicable. For Congress to bother to include such language in the Act is clear and unassailable evidence that lawmakers understood that there are limitations in the ability of

municipalities to meet water quality standards in stormwater discharges. These limitations are spelled out in the statutory standard of MEP applied only to municipal stormwater discharges. NPDES stormwater permits for municipalities will continue to be contentious as long as EPA refuses to recognize that the MEP standard applies as the only mandate for pollutant removal from MS4s. Water quality standards and TMDL waste load allocations may be goals but are not the required standards that must be achieved in municipal stormwater.

Section 2.2.2 Discharge to an Impaired Water without an Approved TMDL: This section is particularly onerous and potentially very expensive. It is also open-ended as far as what EPA and NH DES can require. This type of uncertainty is unacceptable for communities that have to be able to plan and budget resources. It should be the responsibility of EPA and the state regulatory agency to evaluate and identify sources of impairments. This language should be removed from the permit.

Section 2.2.4 and Appendix H Discharges to Chloride-Impaired Waters: The state should implement a statewide training, certification, and salt usage reporting program for commercial salt applicators. This requirement should not rest on municipalities independently. The requirements of the permittees in this section are excessively burdensome and an inappropriate delegation of responsibility. It is not appropriate for EPA to use the General Permit to mandate that a municipality acquire information about the source of the chloride impairment.

The remainder of the Chloride Impaired Water program described in this draft permit includes requirements for non-municipal entities to conform to specific application rates, to calibrate application equipment, to cover their piles, and a requirement to educate those entities on best management practices for deicing materials. This is a significant enforcement burden. The TMDL, not the General Permit, should specify the corrective actions necessary and this section should be removed.

Section 2.3.2 Public Education and Outreach: While EPA provides more time to conduct the public education program in this draft of the permit, it is important to keep in mind that current studies show that the majority of the public does not understand how stormwater can become polluted and how it can contribute to water quality issues. Most of the public still believes that catchbasins in their roads transport stormwater to a treatment facility prior to discharge. In addition, most people do not understand the concept of a watershed, or the concepts related to the water cycle (rainfall, runoff, infiltration, and evapotranspiration). A significant amount of awareness-raising must be done across the United States prior to an individual community education/outreach campaign in order to truly stimulate behavior changes in the general public. Many municipalities see a large influx of visitors during the tourist season and thus education must extend well beyond the immediate locality to be truly effective.

The MCWRS supports the requirements to provide public education materials related to the four sectors identified in the General Permit, however it is beyond any individual municipality's means to conduct a truly meaningful effective campaign. A national education program, such as that promoted by Keep America Beautiful in the 1970's, could provide a consistent and transferable message that regulated MS4s could use in developing further promotional materials.

At a minimum, EPA should provide a template or umbrella program for education of stormwater issues that each municipality could modify to be specific to the municipality's waters. Engaging a public relations firm to identify messages that can be effective is a lengthy and expensive process that should not be imposed upon smaller communities or single cities. It will likely take any party at least 6 months to identify a target audience and message, and develop an evaluation protocol. EPA is in a better position to create and evaluate the effectiveness of any public education messages. Any stormwater education initiatives need to be properly funded and appropriately broad in reach.

2.3.4 Illicit Discharge Detection and Elimination Program:

2.3.4.4 a through e: This Sanitary Sewer Overflow reporting requirement is redundant and should be removed from the Small MS4 permit. Most municipalities are already required to report on overflows and removal and measures to address them as part of their NPDES permits for wastewater treatment plants.

2.3.4.6 System mapping: The required mapping elements include indication of all use impairments as identified in the state's most current 303(d) list. This information is complex and cannot all be displayed on a map in a manner that is legible without significant effort. We respectfully request clarification on the intent of this requirement, so it may be properly and reasonably addressed by municipalities.

2.3.6.8 Directly Connected Impervious Area: The requirement to complete an inventory and prioritization of MS4-owned property and infrastructure that may have the potential to be retrofitted is a burdensome and inappropriate requirement for most municipalities, many that own significant acreage. To comply would be costly and expend funds that would be better spent on already identified stormwater treatment infrastructure needs and operational activities. Retrofits should be applied as corrective measures for areas that are already impaired from polluted stormwater runoff, or as opportunistic when a property is already planned for redevelopment. This requirement should be removed from the General Permit.

Appendix E Notice of Intent:

The suggested form provided by EPA in Appendix E requires that information related to the 2003 SWMP be provided. Many municipalities already submit annual reports providing the requested information, and the requirement is administratively duplicative and wasteful of scarce municipal resources. In addition, the NOI requires that dates and responsible parties and description of BMPs associated with the SWMP be submitted with the NOI. The NOI is due within 90 days of the effective date of the permit. Municipal SWMPs may not be due to be completed beyond the 90 days, so the NOI could effectively shorten the SWMP deadlines. We request that the requirements to provide 2003 information and new SWMP information as part of the NOI be removed.

The MCWRS appreciates the opportunity to comment on New Hampshire's Draft Small MS4 General Permit. We urge EPA to consider modifications to the permit that will make it more sustainable and reasonable for municipalities.

Sincerely,

A handwritten signature in black ink, appearing to read "Philip D. Guerin". The signature is fluid and cursive, with the first name "Philip" and last name "Guerin" clearly legible.

Philip D. Guerin, President

Cc: MCWRS Board of Directors and Members
Great Bay Municipal Coalition

Hi Newton,

Thank you for your response. In addition to considering method 8270 for PAH analysis, please consider method 625 (which is an approved method in 40CRF136). Method 625 is referenced in method 610 so it appears the major difference is that method 625 encompasses compounds beyond just PAHs.

Thank you,
Jenn

Jennifer Jurta
Account Manager

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Proposed New Hampshire Small MS4 General Permit – Comments of the New Hampshire Stormwater Coalition

The New Hampshire Stormwater Coalition (“the Coalition”) represents 20 small municipal separate storm sewer systems (MS4s) communities throughout the state of New Hampshire who are directly affected by the proposed Small MS4 General Permit (“Draft Permit”). For the reasons stated below, the Coalition objects to this permit action as technically and legally flawed and requests that various provisions of the Draft Permit either be withdrawn or modified, consistent with these comments.

Reservation of Rights for Supplemental Submission

A number of requirements contained in the proposed permit are confusing and require further clarification to allow for the submission of comments. Coalition members have included questions regarding the draft permit requirements on many issues. With respect to these general comments, the Coalition and its individual members require clarification on the following questions:

- Whether Response Plans (Draft Permit Part 2.2.2) submitted by permittees will be subject to the public comment process;
- Whether once applicable TMDLs are updated, the requirements of the new TMDL will replace those found in Appendix F of the Draft Permit;
- Whether a reasonable potential analysis will be conducted to show more restrictive limits are necessary; and,
- The extent to which the state’s Stormwater Manual establishes minimum requirements or the presumed approaches that are needed to ensure compliance with this draft permit.

When the Coalition and/or its individual members receives EPA’s response to these matters (and other questions raised in the individual comment letters), the Coalition intends to supplement these preliminary comments if necessary.

Procedural Issues and Objections

1. The Draft Permit Requirements Should Not Be More Stringent than the Existing Permit Requirements Pending EPA’s Adoption of Revised Small MS4 Program Regulations

Since the issuance of the New Hampshire small MS4 general permit in 2003 (“2003 General Permit”), there has been no change in federal regulations applicable to small MS4s. EPA’s regulation at 40 C.F.R. § 122.37 states that “EPA will evaluate the small MS4 regulations at §§

122.32 through 122.36 and § 123.36 of this chapter after December 10, 2012 and make any necessary revisions.” Furthermore, EPA’s regulations specifically provide:

EPA strongly recommends that until evaluation of the storm water program in § 122.37, no additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL or equivalent analysis provides adequate information to develop more specific measures to protect water quality.

40 C.F.R. § 122.34(e). It is highly unusual for EPA to promulgate a regulation codifying that additional requirements should not be imposed,¹ and, as such, substantial weight must be provided to such position. As explained by EPA, “[t]his approach addresses the concern for protecting water resources from the threat posed by storm water discharges with the important qualification that there must be adequate information on the watershed or a specific site as a basis for requiring tailored storm water controls beyond the minimum control measures.” 64 Fed. Reg. 68,788 (Dec. 8, 1999). For this very reason it was particularly inappropriate for EPA to base the need for new permit requirements or expanded coverage of small communities on *presumptions* that MS4s are causing or contributing to the impairment, as occurred extensively through EPA’s Draft Permit. Presumptions do not constitute “adequate information” and certainly do not provide a basis to conclude that expanded MS4 regulation is necessary to ensure adequate environmental protection.

The changes in the Draft Permit (from the pre-existing 2003 General Permit) go far beyond that set forth in § 122.34(e). The number of pages addressing New Hampshire Cities/Towns in the 2003 General Permit was a total of 33 pages of the 56 page permit.² In contrast, the Draft Permit contains an incredible 202 pages (*i.e.*, a six hundred percent increase) of the 217 page document that would apply to New Hampshire Cities/Towns.³ This increase is not the byproduct

¹ In fact, the Coalition has been unable to identify any other EPA regulation under the NPDES program or other environmental programs that has gone to such extremes.

² The 2003 General Permit contained the following 33 pages applicable to New Hampshire MS4s (of which 12 pages were Endangered Species Act guidance):

- Upfront verbiage/authorization (2 pp)
- Part 1 General Requirements (6 pp)
- Part 3 NH Small MS4 (6 pp)
- Part VI – Standard Permit Conditions. (4 pp)
- Part VI – Definitions (3 pp)
- Addendum A – ESA (12 pp)

³ The Draft Permit contains 202 pages applicable to New Hampshire MS4s which includes:

- Upfront verbiage/TOC (3 pp)
- Part 1 - General Requirements (9 pp)

of a new “TMDL or equivalent” analysis that is justified based on case-specific considerations.⁴ This 600% increase in pages of permitting requirements is clearly in contravention of the standard set forth in 40 C.F.R. § 122.34(e).⁵

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- Part 2 - Non-Numeric Effluent Limitations (38 pp)
 - Part 3 - Additional State Requirements (2 pp)
 - Part 4 - Program, Evaluation, Record Keeping and Reporting (4 pp)
 - Appendix A – Definitions (6 pp)
 - Appendix B – Standard Permit Conditions (10 pp)
 - Appendix C – ESA Guidance (12 pp)
 - Appendix D – Historic Properties Preservation Procedures (5 pp)
 - Appendix E – NOI Form (14 pp)
 - Appendix F – Requirements for Approved TMDLs (73 pp)
 - Appendix G - Monitoring Requirements for Discharges to Impaired Waters (2 pp)
 - Appendix H – Requirements Pertaining to Nitrogen-Impaired Waters in the Great Bay Estuary and Chloride-Impaired Waters (20 pp)

In addition, Section 2.3.6.3 of the Draft Permit purports to incorporate by reference requirements in the New Hampshire Stormwater Manual, a document several hundred pages in length.

⁴ EPA acknowledges, for example, that the Draft Permit contains an entirely different approach:

EPA also agrees with the comment . . . that the approach to stormwater management in MS4s required under this [2013] permit [is so significant that it] may require a “paradigm shift” in many communities. . . . Low impact design, green infrastructure and other approaches encouraged and required by the permit treat rain as a resource – an entirely different approach that may require a paradigm shift among both the public and public works personnel.

Fact Sheet, at 35; *see also id.* at 86 (“EPA expects that most if not all permittees will need to revise and update aspects of their programs to meet the requirements of this permit.”); *id.* (“The revision and updating of existing IDDE programs will be necessary because this permit requires the implementation of a far more detailed and thorough IDDE program than that adopted by most communities. EPA has prescribed these detailed requirements . . . ”); *id.* at 87 (“EPA is requiring a number of elements that go beyond the level of program commonly adopted under the MS4-2003.”); *id.* at 120 (“EPA agrees that the SWPPP requirements applicable to maintenance garages, public works facilities, transfer stations and other waste handling facilities are significantly more complex than previously required and reasonably require additional time to develop.”); *id.* at 125 (“EPA has determined . . . than an extensive IDDE program, going beyond the targeted areas that have typically been a focus, is to be a priority under this reissued permit.”); *id.* at 143 (“The reissued permit is specifically intended to set higher standards and increase EPA’s ability to track activities under the SEMP.”); *id.* at 144 (“EPA recognizes that the reissued permit takes an approach that is both more detailed and more protective than the MS4-2003.”).

Furthermore, while the regulated community and EPA can debate whether EPA cost-estimates are artificially low, at a minimum, it is readily acknowledged by EPA that the annual costs to implement the draft MS4 requirements will range from \$106,000 to \$1,149,000 per year in 2010 dollars. *Id.* at 149. This does not include EPA’s breakdown of monitoring costs per outfall, which is set forth in Table II.B.4 on page 159 of the Fact Sheet. As reflected in Table II.B.1 on page 151 of the Fact Sheet, these costs significantly exceed costs under the 2003 General Permit. As concluded by EPA, “EPA recognizes that compliance with this permit will require substantial investment by permittees to reduce the discharge of pollutants from their system” *Id.* at 148.

⁵ While there are a number of things that various EPA personnel would like to see established as new regulatory requirements in the forthcoming MS4 rulemaking, the New Hampshire small MS4 general permit is not the appropriate vehicle for establishing such new requirements.

EPA purports to justify this approach by claiming that the “small MS4 permit from its inception was intended to be iterative in nature, with increasingly stringent requirements as permits are reissued.” EPA totally ignores its own regulation which states the very opposite is intended to occur unless specific analyses confirm the need for more restrictive requirements. As stated in *Leather Industries v. EPA*, 40 F.3d 392 (D.C. Cir. 1994), the Clean Water Act (“CWA”) “does not give EPA blanket, one way ratchet authority to tighten standards.” As discussed above, it is extremely unusual for an EPA regulation to specify that requirements in reissued permits should not be more stringent except upon the existence of specific conditions. *Supra*, at n.1. Yet EPA acts as if 40 C.F.R. §§ 122.34 and 122.37 do not exist. As provided by these regulations, now is not the time to start imposing a “paradigm shift” based on presumptions of impairment contributions from MS4 communities. These circumstances are not TMDLs or an equivalent analysis.

To impose additional requirements under the existing rules, EPA must produce an analysis to show where the MS4 communities are documented to be a significant component of any alleged impairments. The CWA and implementing regulations do not allow EPA to simply presume a source is significant such that reductions must be mandated via a permit (*see, e.g.*, 40 C.F.R. § 122.44(d) requiring EPA to complete a “reasonable potential” analysis to justify the imposition of more restrictive water quality-based requirements). Thus, the permit should remain the same (with some limited exceptions) pending EPA’s re-evaluation of the MS4 rules and completion of the necessary analyses.

2. The Draft Permit Attempts to Restrict Municipalities’ Flexibility in Designing an MS4 Program Tailored to Its Needs and Conditions

The Draft Permit contains an approach that significantly decreases the inherent flexibility that municipalities are intended to have under the MS4 program. The requirements in the Draft Permit are essentially a one-size fits all approach that EPA is unilaterally dictating to the regulated community. EPA acknowledges the effect of its new permitting approach:

However, EPA has found that the extremely flexible approach embodied in the MS4-2003 had a number of negative consequences. . . . The reissued permit is specifically intended to set higher standards and increase EPA’s ability to track activities under the SEMP, consistent with the national approach⁶ as stormwater permits are issued.

⁶ As the regulated community is still awaiting EPA’s promulgation of the MS4 regulations, there is no new national approach. Based upon EPA’s failure to meet the schedule for the proposal of new national stormwater regulations, it is likely that the final regulations will not be released in December 2014 as original thought. EPA is in the midst of negotiating a new schedule. Accordingly, any purported new approach is illegal without the requisite due process rulemaking.

Fact Sheet, at 143.

Municipalities, however, are intended to be provided significant flexibility in the development of an MS4 program and should not be subjected to a “one size fits all” approach. Moreover, EPA lacks authority to dictate, through NPDES permits, the means by which compliance is achieved. *Iowa League of Cities v. EPA*, 711 F. 3d 844 (8th Cir. 2013). The intent is for the municipality to develop a program based upon its specific needs and the actual conditions causing excessive runoff of a pollutant of concern. *See, e.g.*, 40 C.F.R. § 122.34(e). Such conclusions are clearly reflected by, amongst other things, EPA’s preamble statement in the promulgation of the Phase II MS4 regulations:

EPA has intentionally not provided a precise definition of MEP to allow maximum flexibility in MS4 permitting. *MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis.*

64 Fed. Reg. 68,754 (Dec. 8, 1999) (emphasis added).

Moreover, at this time, there are scant MS4 regulations. As EPA is currently in the process of developing proposed regulations, the current MS4 regulations, as described by EPA, provide municipalities a great degree of flexibility to tailor the MS4 program to their site-specific needs. If mandatory requirements are to be established, EPA has made it clear that rulemaking is required:

EPA disagrees with the notion that this regulation, which addressed permit application requirements, should create mandatory permit requirements which may have no legitimate application to a particular municipality. The whole point of the permit scheme for these discharges is to avoid inflexibility in the types and levels of control. Further, to the degree that such mandatory requirements may be appropriate, these requirements should be established under the authority of section 402(p)(6) of the CWA and not in this rulemaking, which addresses permit application requirements.

55 Fed. Reg. 47,990, 48,053 (Nov. 16, 1990).

Instead of EPA dictating what all MS4 communities must do, it is clear that the program is intended to allow the municipality to tailor the program based upon its perceived needs and professional judgment:

Permits for different municipalities will place different emphasis on controlling various components of discharges from municipal storm sewers. For example, the potential for cross-connections (such as municipal sewage or industrial process wastewater discharges to a municipal separate storm sewer) is generally expected

to be greater in municipalities with older developed areas. On the other hand, municipalities with larger areas of new development will have a greater opportunity to focus controls to reduce pollutants in storm water generated by the area after it is developed, discharges from construction sites, and other planning activities.

Id. Consistent with the letter and intent of the MS4 regulations, the permit should provide significant additional flexibility to New Hampshire MS4 communities to reflect only case specific circumstances necessitating more intense methods.⁷ The program should not be creating broad presumptions of significant contributions to alleged impairment problems or creating new requirements to undertake detailed studies based on triggers that nowhere appear in state or federal law (*e.g.*, a single instream measurement of bacteria above the state’s standard). These universally applicable changes and new permit requirements constitute unlawful rule amendments because they are not based on case-specific facts. These amendments should therefore be withdrawn.

3. Determining MEP Requirements is an Iterative Process Ultimately Providing for Compliance With WQS; Not a Program that Demands Immediate Compliance

The Draft Permit is based upon the legal standard that “pollutant discharge be reduced to the maximum extent practicable and not cause or contribute to an exceedance of water quality standards.” Fact Sheet, at 117. This, however, is the wrong legal standard applicable to MS4s, let alone small MS4s, which are intended to be treated in less restrictive more flexible manner. *See* CWA § 402(p). The “shall not cause or contribute” standard is only applicable to new discharges to impaired waters (40 C.F.R. § 122.4(i)) and an MS4 discharge is certainly not a “new” discharge. Stormwater abatement is to be required “to the extent necessary to mitigate impacts on water quality.” CWA § 402(p)(5). EPA is not authorized, via the permit process, to create new regulatory obligations or amend those established by statute. This permit must be withdrawn or amended to allow application of the correct regulatory standards.

Likewise, while a permit may contain some controls associated with progress towards attainment of water quality standards, it should not require compliance with water quality standards at this time, nor hold the permittee liable for “causing or contributing to an exceedance of water quality standards.” As EPA explained in the MS4 rulemaking:

⁷ *See also* 55 Fed. Reg. 47,990, 48,001 (Nov. 16, 1990) (“EPA notes that each municipal program will be tailored to the conditions in that city.”); *id.* at 48,052 (“[A]pplicants should be given the opportunity to identify and propose the components of the program that they believe are appropriate for first preventing or controlling discharges of pollutants.”); *id.* (“Flexibility in developing permit conditions will be encouraged . . .”).

At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards.

64 Fed. Reg. 68,731 (Dec. 8, 1999). Particularly for those MS4 communities now being subject to MS4 permitting for the first time, immediate compliance with water quality standards is not appropriate, nor legally required. Even communities with preexisting MS4 permits will need additional time for compliance with water quality standards.⁸ EPA explained:

EPA envisions application of the MEP standard as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness and should strive to attain water quality standards. Successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards. *If, after implementing the six minimum control measures there is still water quality impairment associated with discharges from the MS4, after successive permit terms the permittee will need to expand or better tailor its BMPs within the scope of the six minimum control measures for each subsequent permit. EPA envisions that this process may take two to three permit terms.*

64 Fed. Reg. 68,754 (Dec. 8, 1999) (emphasis added).

In October 2011, EPA as the NPDES permitting authority, issued an MS4 permit in the District of Columbia. In responding to comments and explaining its permitting decision, EPA specifically recognized the legal standard applicable to MS4 permitting as an iterative permitting process and that the existing permit would be a step toward ultimately achieving water quality standard objectives. Citing, amongst other things, the preamble statements (referenced above), EPA's response to comments specifically recognized that compliance with water quality standards is not required at this time:

Section 301(b)(1)(C) of the CWA, 33 U.S.C. § 1311(b)(1)(C), requires the achievement of limitations, including those necessary to meet applicable water quality standards (WQS). Section 402(p)(3)(B) of the CWA, 33 U.S.C. § 1342(p)(3)(B)(iii), provides that Permits for discharges from municipal storm sewers 'shall require controls to reduce the discharge of pollutants to the maximum

⁸ The draft MS4 fact sheet recognizes that municipalities cannot reasonably be expected to meet water quality standards at this permitting juncture. *See, e.g.*, Fact Sheet, at 49 ("EPA is also aware that many permittees, especially those in highly urbanized areas, likely will be challenged to attain all applicable water quality standards within this MS4 permit cycle."); *id.*, at 50 ("EPA has long recognized that it may take decades or longer to address the water quality impacts of existing municipal stormwater discharges. See EPA's Preamble to the Phase II regulations, 64 Fed. Reg. 687822 (Dec. 8, 1999).").

extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.’ *When read together, these two sections suggest that municipal sources control their discharges to the MEP, with the ultimate achievement of WQS which is expected to occur over several permit cycles.* This is consistent with the construct of EPA’s Final Phase II Stormwater Rule, *National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68731 (Dec. 8, 1999) [website reference omitted]. (‘At this time, EPA determines that water quality-based controls, implemented through the iterative process described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. . . .’); *id.* at 68753 (‘EPA envisions application of the MEP standards as an iterative process.’); *id.* at 68754 (‘EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii).’).

USEPA, Responsiveness Summary, National Pollutant Discharge Elimination System (NPDES) Permit Renewal for Government of the District of Columbia, at 65 (emphasis added). As such, “EPA acknowledges that such standards [*i.e.*, water quality standards] attainment may not occur in its entirety during this Permit cycle.” *Id.* at 80. Accordingly, EPA included a condition in the DC NPDES permit specifically recognizing that water quality standards and wasteload allocations (developed as part of a TMDL) would be achieved as part of the iterative process.⁹

In contrast to the EPA-recognized legal standard, the Draft Permit imposes liability on the permittees for failure to meet water quality standards immediately. Section 2.1 of the draft MS4 permit provides, in part:

3.1.1 Water Quality Based Effluent Limitations

Pursuant to Clean Water Act 402(p)(3)(B)(iii), this permit includes provisions to ensure that discharges from the permittee’s small MS4 do not cause or contribute

⁹ Section 4.1 of the EPA-issued permit provides:

Compliance with the performance standards and provisions contained in Parts 2 through 8 of this Permit shall constitute adequate progress toward compliance with DCWQS and WLAs for this Permit term.

NPDES Permit issued by USEPA to Government of the District of Columbia, NPDES Permit No. DC000021, (Oct. 21, 2011) at 6, ¶ 4.1.

to an exceedance of water quality standards, in addition to requirements to reduce the discharge of pollutants to the maximum extent practicable. The requirements found in this Part and Part 2.2 constitutes the water quality based effluent limits of this permit. Requirements to reduce the discharge of pollutants to the maximum extent practicable are set forth in Part 2.3.

3.1.2 Requirement to Meet Water Quality Standards

- a. Discharges shall not cause or contribute to an exceedance of applicable water quality standards (including numeric and narrative water quality criteria) for the receiving water. Applicable water quality standards are the State standards that have been federally approved as of the effective date of this permit.

Draft Permit, at 13.¹⁰ Such provisions are not authorized by the adopted NPDES rules or the statutory language. Consistent with the applicable legal interpretation, NPDES permit conditions imposing liability upon a failure to meet water quality standards should be deleted.

4. The Draft Permit Should Not Require Immediate Compliance with TMDLs but Instead Should Provide an Iterative Process

TMDLs are merely one means of implementing a water quality standard. According to EPA, a wasteload allocation (“WLA”) derived from a TMDL “constitute[s] a type of water quality-based effluent limitation.” 40 C.F.R. § 130.2(h).¹¹ A case specific water quality-based effluent limit may also be derived under the procedures specified in 40 C.F.R. § 122.44(d).

As the juxtaposition of MEP and CWA water quality requirements, as discussed above, provides for an iterative process over several rounds of MS4 permitting for meeting water quality standards, such iterative process is equally applicable to those requirements set forth in TMDLs. This is not to say that TMDL requirements are ignored. Where an approved TMDL provides adequate information to develop more specific measures to protect water quality, then measures can start to be developed and implemented with the ultimate goal, similar to any other water quality standard, of attainment of that standard through the iterative process. Nonetheless, the process is iterative, not immediate as the degree of and effectiveness of MS4 controls is not apparent.

¹⁰ See also Fact Sheet, at 50 (“Even where a permittee is in compliance with the requirements of Part 2.2 of the permit, it may still be in violation of Part 2.1.1 of the permit if its discharge causes or contributes to an exceedance of water quality standards.”).

¹¹ See also 64 Fed. Reg. 68,789 (1999) (“The development and implementation of total maximum daily loads (TMDLs) provide a link between water quality standards and effluent limitations.”).

In fact, it was that type of approach that was approved in *Tualatin Riverkeepers v. Or. Dep't of Env'tl. Quality*, 235 Ore. App. 132, 146-148 (Or. Ct. App. 2010). In *Tualatin*, the court specifically endorsed the adaptive management approach of implementing MEP in making progress toward achieving the WLA:

The permits provide in the "adaptive management" section that, "[w]here TMDL wasteload allocations have been established for pollutant parameters associated with the permittee's [municipal separate storm sewer system] discharges, the permittee must use the estimated pollutant load reductions (benchmarks) established in the [storm water management plan] to guide the adaptive management process." Furthermore, they include a section that specifically addresses the TMDL wasteload allocations. The section is intended to "ensure pollutant discharges for those parameters listed in the TMDL are reduced to the [maximum extent practicable]. Adequate progress toward achieving assigned wasteload allocations * * * will be demonstrated through the implementation of best management practices that are targeted at TMDL-related pollutants."¹²

The Draft Permit, however, in contrast, would require compliance with the TMDL immediately, or no later than the date set forth in the TMDL. Such approach is inconsistent with the CWA provisions governing MS4 programs as well as the adopted rules. The TMDL requirements in the Draft Permit should be modified to provide an iterative process associated with compliance with TMDLs, not to create immediate non-compliance.

5. Liability May Not Be Imposed for “Contributing” to a Violation; It May Only Be Imposed for “Causing” a Violation

In addition to the concern, discussed above, regarding the Draft Permit imposing liability upon the permittee for violation of a water quality standard, the Draft Permit exacerbates liability concerns by purporting to impose liability on a permittee that “contributes” to a violation, even if the violation is not caused by the permittee. While the standard “or contributes” may be appropriate when EPA is undertaking the “reasonable potential” evaluation and determining whether or not a water quality-based limit should be included, it is not an appropriate standard for imposing liability upon the permittee and does not define the degree of pollutant reduction that must be achieved. Again, attempting to impose a “cause or contribute” prohibition constitutes an illegal amendment to the adopted rules and is contrary to the CWA (*e.g.*, Section 301(b)(1)(C) only allows imposition of more restrictive limits as “necessary” to achieve applicable standards; *accord* 40 C.F.R. § 122.44(d)).

¹² *Tualatin*, 235 Ore. App. at 147.

Case law has specifically determined that liability can only be imposed for “causing” a violation, not for “contributing” to a violation. *See Nat’l Ass’n of Metal Finishers v. EPA*, 719 F.2d 624 (D.C. Cir. 1983).¹³ The prohibition against “contributing” to a water quality violation should be deleted from the draft permit as it is inconsistent with the statute and implementing regulations.

6. It is Improper to Impose Additional Requirements on MS4s after the Final Permit has been Issued Without Following the Proper Procedural Steps

Part 3.1.2 of the Draft Permit provides for the potential automatic inclusion of additional requirements upon permittees without amendment of the permit or any further due process procedures. This section provides:

3.1.2 – If New Hampshire Department of Environmental Services (NH DES) determines that additional water quality certification requirements are necessary to protect water quality, it may require individual applicants to meet additional conditions to obtain or continue coverage under this permit. Any such conditions shall be supplied to the permittee in writing. Any required pollutant loading analysis and any designs for structural best management practices necessary to protect water quality shall be prepared by a civil or sanitary engineer registered in New Hampshire.

See also Fact Sheet, at 25 (“The requirements include . . . provision for NHDES to add additional water quality certification requirements if necessary to protect water quality. . . .”). This condition appears to be completely open-ended, as EPA acknowledges that “NHDES has not identified more specifically under what conditions or circumstances it would necessitate such additional requirements.” *Id.* at 135.

State certification, however, is not a continuous process. A State gets to certify a preliminary draft or draft permit. Neither CWA Section 401 nor EPA regulations, (*see, e.g.*, 40 C.F.R. § 124.53), provide a State the right to modify a state certification during the term of the permit to unilaterally impose new requirements upon the discharger. Section 401(a)(1) provides, for example, that “[n]o license or permit shall be granted until the certification required by this

¹³ In response to the *Nat’l Ass’n of Metal Finishers* case, EPA amended its regulations stating:

Finding that the definition did not require causation to establish liability, the court held that this approach contravened the intent of Congress: “[W]e conclude that given the language and purpose of the [Clean Water] Act, an direct discharge [sic] cannot be liable under the prohibited discharge standard unless it is a *cause* of the POTW’s permit violation or sludge problem” . . .

50 Fed. Reg. 25,527 (June 19, 1985).

section has been obtained or has been waived as provided in the preceding sentence.” It reflects that the certification is *prior to* the issuance of the permit, not afterwards.

The regulations require that “State certifications shall be granted or denied within the reasonable time specified under paragraph (c)(3).” 40 C.F.R. § 124.53(d). Moreover, the referenced subsection (40 C.F.R. § 124.53(c)(3)) provides that a State will be deemed to waive its right to certify unless that right is exercised within a reasonable time *not to exceed 60 days from the date the draft permit is mailed* to the State. As the draft permit had been provided to the State more than sixty days ago, the State no longer has a right to impose additional requirements through the permitting process.

If a State is to impose conditions through a certification, it must clearly state what those conditions are:

[C]ertifications have not always clearly stated exactly what conditions are necessary to comply with State law, and whether less stringent conditions would also satisfy State law. The final regulations remedy these problems by requiring States to set forth in all cases the minimum terms and conditions which will be necessary to comply with applicable law.

44 Fed. Reg. 32,880 (June 7, 1979).¹⁴

Furthermore, EPA’s regulations provide a process for modification of the NPDES permit based upon changed circumstances. 40 C.F.R. § 122.62. It does not provide an open-ended provision for a State, once the permit has become effective to independently superimpose new requirements, whether water quality related or otherwise. Such action would constitute a permit modification that must be subject to the applicable NPDES due process procedures. Consequently, Part 3.1.2 should be deleted.

In addition, the draft permit also purports to allow EPA to superimpose additional requirements upon the permittee without following NPDES permit amendment procedures. For example, section 2.3.4.8 of the draft permit provides that “EPA may *at any time* determine that a particular element is in fact applicable to the permittee and require the permittee to add it to the IDDE program.” (emphasis added). Either such provisions should be deleted from the permit or EPA should clarify that due process procedures apply to modification of the permittee’s legal obligations under the permit and no such modifications will be applicable unless and until all administrative process and appeal rights are completed.

¹⁴ While this statement was made in the preamble to the proposed regulation, EPA indicated in the final rulemaking that it was relying on the rationale set forth in the June 7, 1979, proposal. 98 Fed. Reg. 33,413-14 (May 19, 1980).

7. The Office of Management and Budget Must Provide Approval Pursuant to the Paperwork Reduction Act to the Large Reporting Burden Being Place on the Permittees Under the Draft Permit

It appears that a huge additional reporting burden has been placed on the permittees.¹⁵ We question whether EPA has received OMB approval of all of the reporting burden being imposed through the permit pursuant to the Paperwork Reduction Act (“PRA”), 44 U.S.C. §§ 3501 *et seq.* For example, the extensive NOI form contained in Appendix E fails to reflect an OMB approval number, something that is typically included on EPA reporting forms when approval has been obtained.

The fact sheet identifies the OMB approvals as being (1) OMB control number 2040-0086 for the NPDES permit application and (2) OMB control number 2040-0004 for monitoring reports. As this is not a permit application, but instead the imposition of permit requirements, the permit application approval is irrelevant.¹⁶ Furthermore, the OMB approval of the burden associated with the monitoring reports clearly does not address the significant burden that would be imposed upon the permittees through the Draft Permit. There are extensive reporting burdens imposed upon the permittee that are not part of the monitoring report. This includes, but is not limited to, the burden that would be imposed upon the permittee in meeting the Endangered Species Act (“ESA”) requirements set forth in the Draft Permit which would require the permittee to document the results of its determinations.¹⁷ We request that EPA remove all requirements in the permit which are not currently approved by OMB pursuant to the PRA.

8. It is EPA’s Responsibility to Ensure that Endangered Species Act Requirements are Met; this Burden Cannot be Imposed on the Permittee

Section 1.9.1 and Appendix C of the Draft Permit requires permittees to engage in a multi-step consultation process which imposes conditions that are not based upon the water-quality of the discharge (*i.e.*, these are not effluent limitations or provisions designed to ensure effluent

¹⁵ See, e.g., Fact Sheet, at 136 (comment 5.0(ii) from City of Portsmouth identifying “approximately 2,000 staff hours would be required to comply with the administrative components of the draft Permit such as tracking and annual reporting.”).

¹⁶ See, e.g., 55 Fed. Reg. 47,990, 48,053 (Nov. 16, 1990) (reflecting that the permit application requirements are distinguished from the permitting requirements).

¹⁷ Draft Permit Appendix C, at 3, 7.

limitation attainment). This requirement is unprecedented and cannot be imposed on the permittees as it is EPA's duty, not the permittees.¹⁸

EPA has not historically imposed conditions in an NPDES permit which makes the permittee responsible for compliance with ESA (16 U.S.C. §§ 1531 *et seq.*) requirements (*e.g.*, Section 7 consultations under 16 U.S.C. § 1536). NPDES regulations do not make such an assessment part of the permit application or compliance process. It is EPA's responsibility (not the permittee's) to ensure that NPDES permits comply with ESA requirements. *See* 50 C.F.R. § 402.08 ("The ultimate responsibility for compliance with Section 7 remains with the Federal agency."). The CWA regulations specifically state that the ESA and its implementing regulations "require [that the EPA] Regional Administrator ensure, in consultation with the Secretary of Interior or Commerce, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat." 40 C.F.R. § 122.49(c). To the extent EPA had discretion to allow non-Federal parties to engage in section 7 consultations, EPA made clear in its regulations that it would not use this discretion and instead retains sole responsibility to ensure all permits are in compliance with ESA requirements. Therefore, EPA should be undertaking any ESA activities prior to issuing the NPDES permit and any attempt to delegate that responsibility is contrary to the ESA and the implementing rules.

Furthermore, to the extent Section 7 consultation is required in the NPDES permit context, it must be undertaken *by EPA* before an agency action is final. *See e.g.*, 16 U.S.C. § 1536(a)(3) ("a Federal agency shall consult with the Secretary on a *prospective agency action* ... and in cooperation with, the *prospective permit or license applicant* ...") (emphasis added). The purpose of engaging in Section 7 consultation is to "insure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species ..." *Id.* at § 1536(a)(2). The no jeopardy or adverse modification determination must be made prior to the finalization of the agency action in order to allow for modifications to the action if a jeopardy or adverse modification determination is made. *See e.g., id.* at §

¹⁸ Potentially the multi-step consultation incorporates, amongst other things, the following general conditions in the permit:

- (1) Engage in informal consultation under 50 C.F.R. § 402.13, to determine if the permit would "likely [] jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species." 16 U.S.C § 1536(a)(2).
- (2) If during informal consultation it is determined that jeopardy or adverse modification would occur, then EPA and Fish and Wildlife Service ("FWS") and/or National Oceanic and Atmospheric Administration ("NOAA") word engage in formal consultation under 50 C.F.R. § 402.14. The permittee's role in formal consultation involves submitting any additional information for consideration during the consultation process (*Id.* § 402.14(d)) and involvement in the discussions regarding FWS/NOAA "review and evaluation" of the data submitted and development of suggested alternatives to avoid jeopardy or adverse modification (*Id.* § 402.14(g)(5)).

1536(b)(3)(A) (“If jeopardy or adverse modification is found, the Secretary shall suggest those reasonable and prudent alternative which he believes would not violate subsection (a)(2) of this section and can be taken by the Federal agency or applicant in implementing the agency action.”). Therefore, if Section 7 consultation is required for an NPDES permit, it must be undertaken *by EPA* before the NPDES permit is issued.

Assuming, for the sake of argument, that ESA Section 7 consultation is required and EPA can pass this requirement on to the permittee, this requirement cannot be imposed as a NPDES permit condition. The Court of Appeals for the District of Columbia Circuit made clear in *Natural Res. Def. Council (“NRDC”) v. EPA*, that EPA may not impose conditions in a CWA permit that are unrelated to water-quality. 859 F.2d 156 (D.C. Cir. 1988). In that case, NRDC challenged NPDES regulations promulgated by EPA related to National Environmental Policy Act (“NEPA”, 42 U.S.C. §§ 4321 *et seq.*) regulations (40 C.F.R. §§ 129.29(c)(3), 122.44(d)(9), 122.49(g)) which EPA interpreted to grant it authority to “impose permit conditions unrelated to effluents.” *Id.* at 169. EPA argued that NEPA allowed the agency to consider “additional environmental factors” and “to act on these by imposing any condition necessary to account for the environmental effects of the entire new facility,” not just the discharge from the facility. *Id.* The court disagreed with EPA’s position and held that NEPA “does not expand the range of final decisions an agency is authorized to make. ... NEPA does not expand an agency’s substantive powers.” *Id.* (citing *NRDC v. EPA*, 261 U.S. App. D.C. 272 (D.C. Cir. 1987)). The court further stated that “EPA may not, however, under the guise of carrying out its responsibilities under NEPA transmogrify its obligation to regulate discharges into a mandate to regulate the plants or facilities themselves. To do so would unjustifiably expand the agency’s authority beyond its proper perimeters.” *Id.* at 170. Therefore, the court held that EPA’s authority under NEPA, only allowed EPA to consider the environmental effects based on the water quality impacts of the discharge. *Id.*

It is clear from *NRDC v. EPA* that, in issuing NPDES permits, EPA may only add requirements based on other statutory mandates that apply directly to the water-quality impact of the discharge as provided for by its CWA authority. The CWA does not regulate endangered species. EPA, in other contexts, has stated that adopted standards are presumed protective of endangered species absent information to the contrary. While the imposition of water quality-based permit limits due to a consultation may be possible under EPA’s approach, the formal consultation process imposed clearly cannot be imposed in the NPDES permit as a permit requirement based upon the mere possibility that a facility may or may not be subject to additional water quality-based effluent limits. This entire section and related Appendix should be deleted.

9. The Draft Permit Inappropriately Shifts the Burden To the MS4 To Demonstrate It Is Not Causing or Contributing to an Impairment

The Draft Permit inappropriately presumes that the permittees are causing or contributing to an impairment. Section 2.2.2.a(i)(a) of the draft permit specifically states that:

EPA presumes that MS4 discharges are potential contributors to impairments due to nutrients (phosphorus or nitrogen), bacteria, suspended solids, metals, or oil and grease.

Draft Permit, at 19.¹⁹ While EPA clearly recognizes that the permittee may not be the underlying cause of the impairment,²⁰ the permit, nevertheless, shifts the burden on the permittee to demonstrate that it is not the cause of the impairment in order to avoid implementing the BMPs:

The revisions to Part 2.2.2 make provisions for these situations by allowing permittees to demonstrate that their discharges are not potential contributors and thereby be excused from developing BMPs. See Part 2.2.2.a(iii).

Fact Sheet, at 51. The Fact Sheet further provides:

The Permit provides an opportunity for permittees to demonstrate that their discharges do not cause or contribute to an impairment and that BMP implementation is therefore not required. . . . However, for common stormwater pollutants, including nutrients, bacteria, suspended sediments, metals and oil and

¹⁹ Similarly, the Fact Sheet provides:

There are cases where a receiving water is impaired for reasons other than stormwater runoff, and MS4 discharges are not contributing to the problem, the revised permit language allows for an MS4 operator to make that determination, subject to review by EPA. However, for common stormwater pollutants, including nutrients, bacteria, suspended sediments, metals and oil and grease, urban stormwater is likely to be a source and EPA presumes MS4 discharges have potential to contribute to the impairment. The mere presence of other sources, including upstream communities (MS4 or otherwise), is not a sufficient basis for concluding that a permittee's discharges do not contribute to an impairment. Similarly, in receiving waters impacted by CSOs, MS4s may still contribute bacteria even if to a lesser extent than CSO discharges.

Fact Sheet, at 52-53.

²⁰ EPA states:

EPA recognizes that there are impairments that are not related to stormwater discharges, either because they are not present in the discharge or because they are not related to pollutants (e.g. non-native aquatic plants). MS4 permittees are not responsible for impairments that are due to natural occurrence and not present in discharges from outfalls, as in the iron example cited by the Town of Derry.

Fact Sheet, at 51.

grease, urban stormwater is likely to be a source and EPA presumes MS4 discharges have potential to contribute to the impairment.

Fact Sheet, at 52-53. As such, the permit requires the permittee to implement BMPs unless it can demonstrate, to the satisfaction of EPA, that it is not the cause of the underlying impairment.

EPA's approach (*i.e.*, presume a MS4 contributes to an impairment and make the MS4 prove it does not) violates the basic structure of the Act and the relevant implementing regulations. Under 40 C.F.R. § 122.44(d)(1)(ii), a *permitting authority* determines whether a discharge "causes, has the reasonable potential to cause, or contributes to" an excursion of water quality standards. The "reasonable potential analysis is required to account for dilution, the various sources of the pollutant of concern and current/proposed treatment improvements affecting pollutant levels in rendering a decision on the need to control a particular facility." *Id.* Once such a determination is made, the permitting authority determines whether a pollutant reduction is required. Likewise, under Section 303(c), the state (or EPA) determines which sources require control under the TMDL program. Neither the CWA nor EPA's regulations provide a basis to presume an impairment contribution or to transfer the assessment procedure to the permittee.

Such an approach was recently struck down by the District Court for the District of Columbia as an unlawful attempt to amend existing regulations. As explained by the court in *Nat'l Mining Ass'n v. Jackson*, 880 F. Supp. 2d 119, 139 (D.D.C. 2012), EPA cannot assume that reasonable potential exists for imposing limits and, thereby, shift the burden to the permittee to show that a reasonable potential does not exist. The court reasoned that by EPA presuming that, "based on the scientific studies regarding conductivity, it is likely that all discharges will lead to an excursion or that the conductivity studies will be instructive on the matter, [EPA] removes the reasonable potential analysis from the realm of state regulators." *Id.* Shifting the burden is not allowed by the CWA. The court stated: "Should the EPA wish to alter the manner by which a reasonable potential analysis is conducted, it is of course free to amend the regulation in a manner consistent with the APA [Administrative Procedures Act] and its own statutory authority." *Id.* at 141-142. However, until then, EPA cannot assume certain conditions exist resulting in new permit requirements. In effect, EPA is declaring cities to be in violation of the law without the opportunity (afforded by the CWA and APA) to appeal such a determination. That approach is also unlawful. *Sackett v. EPA*, 132 S. Ct. 1367 (2012).

Accordingly, the permit should delete any and all requirements that are based upon presumptions that the MS4 is "causing or contributing" to impairments as well as any provisions that place the responsibility to conduct "reasonable potential" analyses on the permittee. In particular, this includes removal of BMP requirements that are based upon the presumption that the discharger is a cause or contributes to impairments.

10. Holding the Permittee Liable for Illegal Acts of Others is Inconsistent with Stormwater Regulations

EPA's stormwater regulation at 40 C.F.R. § 122.26 repeatedly recognizes that third parties, whether it be individuals, industries, or neighboring municipalities, will on occasion and often illegally, contribute pollutants to discharges by a stormwater permit holder. However, unlike the proposed permit at issue,²¹ EPA's regulation does not hold the permittee liable for such illicit discharges. For instance, 40 C.F.R. § 122.26 mentions "illicit" discharges twelve (12) times. In each case, the regulation talks about a MS4 permit holder's responsibility to identify, track, report, ameliorate, and, ultimately, eliminate such discharges. *See, e.g.*, 40 C.F.R. § 122.26(d)(1)(V)(B) ("A description of the existing program to identify illicit connections to the municipal storm sewer system. The description should include inspection procedures and methods for detecting and preventing illicit discharges, and describe areas where this program has been implemented."). However, the regulation nowhere identifies that a permit holder will be liable for such third party contributions or actions. Being obligated to take all reasonable measures to discourage such illicit additions to its MS4 collection system is a far cry from being held liable if such measures are not wholly effective. When it comes to illicit discharges, EPA's stormwater regulations do not require a MS4 to meet such a flawless standard and this permit should not seek to establish such a standard as it would be fundamentally unfair.²²

Similarly, EPA's stormwater regulations repeatedly recognize that MS4s are frequently set up such that adjacent or neighboring systems are operated by "co-permittees." *See, e.g.*, 40 C.F.R. § 122.26(a)(3)(iii)(A) ("Participate in a permit application (to be a permittee or a co-permittee) with one or more other operators of discharges from the large or medium municipal storm sewer system which covers all, or a portion of all, discharges from the municipal separate storm sewer system"). In this regard, EPA specifically notes that "co-permittees need only comply with permit conditions relating to discharges from the municipal separate storm sewers for which they are operators." 40 C.F.R. § 122.26(b)(1)(vi). Put differently, a co-permittee is not liable for the failure of its neighboring jurisdictions to abide by its conditions. As drafted, however, the draft permit appears to hold a MS4 permit holder liable for the contributions of neighboring (up-

²¹ The Fact Sheet specifically notes that the permit would hold the permittee liable for the illegal acts of others:

EPA notes that the period between identification and elimination of an illicit discharge is not a grace period, and an illicit discharge to the MS4 remains a violation of the permit until eliminated.

Fact Sheet, at 90 n.25.

²² To hold an MS4 permittee liable for the illegal acts of others would be tantamount to holding every Department of Transportation liable for speeding or other illegal acts of drivers undertaken on its roads.

system) towns and municipalities.²³ Holding one municipality liable for the actions (or omissions) of a separate municipality is inconsistent with EPA's stormwater regulations. Accordingly, it is requested that the Draft Permit be modified or clarified such that, at a minimum, the permit holder is not liable for such third party contributions and, where a joint discharge occurs, only the jurisdiction responsible for the violation is made liable for its excessive contributions to the MS4 discharge. Furthermore, the MS4 permit should be clarified to reflect that the MS4 permittee is not responsible for reduction in loads or implementation of BMPs associated with loadings that are generated upstream of its jurisdictional boundary and end up in the MS4 discharge.²⁴

Without waiving our right to object to the imposition of liability upon a municipality due to the illegal acts of others, we also point out that there are a number of municipalities being brought into the MS4 program for the first time. It would be impossible for a NPDES permittee, as of the first date of coverage under the permit, to be able to identify and eliminate illicit discharges. A compliance schedule, providing a reasonable time for implementation of activities to identify and eliminate illicit discharges, is therefore required. As this is purely a regulatory prohibition, not otherwise mandated to meet applicable standards, the federal or state authority allowing compliance schedules is applicable.

11. Monitoring is Intended to be Based on What a Municipality Finds Appropriate and Useful

While we appreciate the fact that the monitoring is not quite as onerous as provided in the 2008 draft permit, we believe that the command and control approach to monitoring is still problematic. For example, in responding to a comment by the City of Goffstown, EPA states:

With respect to the Town of Goffstown's comment that discretion to concentrate on suspected areas of concern would be a more prudent use of limited resources, EPA is requiring a comprehensive system-wide examination.

Fact Sheet, at 97. Such an approach where EPA dictates the activities that should be undertaken by a municipality, particularly where the municipality does not find such approach to be useful,

²³ For example, the Fact Sheet, in addressing lake and pond phosphorus discharges states:

A permittee that operates an MS4 within the watershed boundaries of the respective impaired lake or pond is thus required to achieve the relative phosphorus reduction from the baseline phosphorus loading from any MS4 area draining to the impaired waterbody (both direct stormwater drainage, and stormwater discharge from outfalls and their contributing area).

Fact Sheet, at 8.

²⁴ This is particularly critical as municipalities generally do not have the legal ability to implement requirements outside of their jurisdictional boundary. *See L.A. County Flood Control Dist. v. NRDC*, 133 S. Ct. 710 (2013).

flies in the face of the MS4 regulations. First, it is important to keep in mind, as readily admitted by EPA, that the MS4 regulations “do not include specific management practices or standards to be implemented.” 74 Fed. Reg. 68,620 (2009). Furthermore, EPA recognizes that “stormwater permits leave a great deal of discretion to the regulated community to set their own standards and to self-monitor.” *Id.* In fact, monitoring programs are supposed to be designed to be based upon reasonable municipal preferences, not that of the permit writing agency:

EPA encourages permitting authorities to work with permittees to determine if storm water monitoring efforts are appropriate and useful. * * * [MS4s may] evaluate their monitoring program and propose changes to make the program more appropriate and useful. To accomplish this, municipalities may wish to consider using monitoring techniques other than end-of-pipe chemical-specific monitoring. . . .

61 Fed. Reg. 41,699 (Aug. 9, 1996).

Accordingly, it is requested that EPA revise its command and control approach to be consistent with the adopted rules and provide MS4 communities the opportunity to utilize such monitoring as they find to be the most appropriate and useful for their situation.

12. The Draft Permit Fails to Adhere to the Regulatory Flexibility Act

As the Draft Permit is poised to significantly increase the burden on small municipalities and local businesses, EPA should have prepared an initial regulatory flexibility analysis, in accordance with the Regulatory Flexibility Act (5 U.S.C. §§ 601 - 612) (“RFA”). The RFA generally requires agencies to analyze and explain the impact of their actions on small entities (businesses, non-profit organizations, and small jurisdictions of government). EPA, however, claims that “since the general permit affects less than 100 small entities, it does not have a significant economic impact on a substantial number of small entities.” Fact Sheet Attachment 1, at 64.

As an initial matter, such a conclusion flies in the face of the guidance document²⁵ relied on and referenced by EPA in the Fact Sheet (*id.*), which states: “It remains EPA policy that program offices should assess the direct adverse impact of every rule on small entities and minimize any adverse impact to the extent feasible, regardless of the magnitude of the impact or number of small entities affected.” Final Guidance for EPA Rulewriters, at 3. Moreover, EPA’s estimate of the number of small entities affected did not include the countless number of small businesses

²⁵ Final Guidance for EPA Rulewriters: Regulatory Flexibility Act as Amended by the Small Business Regulatory Enforcement Fairness Act (“Final Guidance for EPA Rulewriters”) (Nov. 2006), *available at* <http://www.epa.gov/rfa/documents/Guidance-RegFlexAct.pdf>.

that will be substantially impacted as a result of the conditions set forth in the Draft Permit. However, even if EPA's estimate of affected entities were correct, EPA provides no explanation for concluding that this number is "insignificant."²⁶ On this issue, the anticipated costs of the Draft Permit on small governmental jurisdictions will be very significant, especially for the smaller municipalities.²⁷ In no sense of the word could this impact be considered "insignificant." If anything, the fact that this cost estimate will be defrayed by a relatively small number of affected entities highlights the substantial nature of EPA's action. Accordingly, as EPA's conclusion represents a blatant disregard for the impacts the Draft Permit will impose, EPA should comply with the RFA in issuing the Draft Permit.

13. MS4s Should Not Be Responsible for Identifying Floor Drains That May Be Connected to Illicit Discharges

Section 2.3.7.2(b)(ii) of the Draft Permit would require the Stormwater Pollution Prevention Plan (SWPPP) to include the "location of floor drains" at facilities. Draft Permit, at 47. EPA purports to justify this approach stating that "EPA believes that examination of floor drain connections that present an unusual risk of illicit discharge, such as from maintenance shops, is an appropriate requirement to ensure that there are no improper connections to the MS4." Fact Sheet, at 110. It is not reasonable for EPA to require the MS4 permittee to identify all floor drains at all facilities within its jurisdiction. If EPA believes identification and inspection of floor drains to be necessary, then we request EPA to identify the extent to which it identified and inspected floor drains in those municipalities which do not have an MS4 program. Moreover, EPA should have assessed this as part of its statutory evaluation of MS4 programs to determine if such control should be universally applied. Municipalities, like EPA, have limited resources. As such, we would like to avoid the situation where EPA is asking a municipality to expend its resources on activities that EPA, itself, does not believe merit the use of its dollars. This provision should be dropped as no legally or technically sufficient supporting basis was provided for its justification as a "belief" is not evidence of a need.

²⁶ As noted on pages 47-48 of these comments, EPA's BMP performance curves are plainly in error and inconsistent with other estimates provided to more developed programs (*e.g.*, Chesapeake Bay).

²⁷ While there is a huge disparity between the costs estimates by the MS4 permittees and EPA, at a minimum it is clear that the costs merely for implementing minimum control measures will be at least \$78,000 to \$829,000 per year per permittee averaged over the term of the permit. Given the number of permittees, such per year costs are anything but insignificant. Fact Sheet, at 154. EPA also readily acknowledged that its cost estimate excludes some very significant costs, such as compliance with the water quality-based effluent limitations. *Id.* at 149.

14. EPA has No Authority to Regulate Catch Basins

Section 2.3.7.1(d)(ii) of the Draft Permit (Operation and Maintenance Programs) provides that “the permittee shall optimize routine inspections, cleaning and maintenance of catch basins such that ... no sump shall be more than 50% full.” Draft Permit, at 45. While it is understood that cleaning sumps and catch basins is part of the expected management practices to ensure their proper operation, this provision, as worded is unduly restrictive. While some sumps must be cleaned when at 50% capacity, others do not. It depends on the catchment area and conservativeness of the design. Moreover, the requirement to “optimize” operations is vague and could place even compliant operations in violation because they were not “optimized”. Finally, this provision, as worded, regulates the operation of a unit, not the pollutant output of a unit and EPA has no authority under the Act to do so. *See Iowa League of Cities*, 711 F. 3d at 877-878. Moreover, the fact that the sump is 50% or more full may be a basis for triggering a requirement to inspect more frequently. However, it should not be a violation when there is still significant capacity remaining in a unit, or even if a unit is full. The level of water in a sump cannot be grounds for violating the Act (or permit) as it does not involve a discharge or the improper operation of a unit, *per se*. We suggest that the 50% target be set as an example, not a rigid requirement applicable to all situations. The proposed language should be reworded to require that the permittee conduct “sufficient” inspections “to ensure proper operation of catch basins and sumps.”

15. EPA’s Incorporation By Reference of the New Hampshire Stormwater Manual is Improper

Section 2.3.6.3 of the Draft Permit would require that the municipal “ordinance or other regulatory mechanism be amended or modified within two (2) years of the effective date of the permit to require compliance with the design criteria set forth in the most recent version of the New Hampshire Stormwater Manual.” Draft Permit, at 41. The New Hampshire Stormwater Manual is a huge three-volume document that is not a federal regulation nor was it adopted as a state regulation. First, it cannot appropriately be imposed as an NPDES permit requirement by reference. At a minimum, EPA would have to provide its own specific analysis of all provisions and conclude that compliance with such provisions are necessary to meet the requirements of the Act. No such analysis has been presented. Furthermore, even if it could be imposed, the permit could not appropriately require the permittee to meet a future revision which is not in existence as of the date of the issuance of the NPDES permit. As to these two issues, the federal regulations are clear:

For a permit issued by EPA, an applicable requirement is a [federal] statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit.

40 C.F.R. § 122.43(b). As the New Hampshire Stormwater Manual is neither a federal regulation nor a statutory provision, it cannot be incorporated into an EPA-issued NPDES permit, whether an individual permit or a general permit.²⁸

Furthermore, requiring the use of this manual can impose huge costs upon facilities to be managed by the MS4 entity. This is an example of costs that were not incorporated into EPA's cost estimates or by EPA's evaluation of the impacts under the RFA. This provision must be deleted from the permit.

Scientific Issues and Objections

1. Provisions in the Draft Permit Imposing Limits on Pollutant Loads Beyond Those Required to Comply with Surface Water Quality Criteria are Unnecessary

Part 2 of the Draft Permit addresses non-numeric effluent limitations deemed necessary to comply with New Hampshire's surface water quality standards. The New Hampshire water quality standards (Env-Wq 1700) are instream concentration values deemed necessary to protect the designated uses of the receiving water. Provisions in the Draft Permit that limit pollutant loads beyond those required to comply with the surface water quality criteria are unnecessary and should be deleted from the Draft Permit, including:

2.1.2.b.iii -- New or Increased Discharges to Impaired Waters

This provision provides that “[t]here shall be no new or increased discharges from the MS4 to *impaired waters* unless the permittee demonstrates that there is no net increase in loading from the MS4 to the impaired water of the pollutants(s) for which the waterbody is impaired.” Draft Permit, at 14.

This requirement would, in essence, prohibit any new/additional flow of stormwater runoff regardless of the effluent concentration, as any measureable concentration would constitute an increase in the load. For instance, whenever the concentration in the MS4 discharge is less than the water quality standard, the discharge improves water quality in the impaired water body. Moreover, this restriction would apply even if the impairment is not stormwater related (*e.g.*, caused by conditions occurring during drought flows). Therefore, such discharges do not cause or contribute to an exceedance of the water quality standard and consequently should not be prohibited by this provision.

²⁸ We also note that EPA's imposition of the New Hampshire Stormwater Manual requirements upon municipalities and other entities, while exempting federal facilities from such requirements (*see* Draft Permit, at 58 § 5.2), is arbitrary and capricious.

Moreover, this requirement presumes that the discharge is beyond *de minimis* levels and is a significant cause of the impairment without any demonstration, as required by federal law and applicable NPDES rules, that this requirement is necessary to restore designated uses. There are certainly instances where an impairment source is identified (*e.g.*, CSO discharge of bacteria) whose limitation will bring the waters back into compliance. The fact that some other source is the cause of an impairment does not give EPA *carte blanche* to regulate all other sources.²⁹ This limitation should be deleted or, at a minimum, restricted to where EPA has determined that the MS4 is significantly contributing to the impairment.

2.2.1.b -- Discharges Subject to an Approved TMDL with a MS4 Wasteload Allocation

This provision provides that:

For those TMDLs that specify a wasteload allocation or other requirements either individually or categorically for MS4 discharges, the permittee shall comply with the terms of Part 2.1 and 2.2 and satisfy the appropriate requirements of Appendix F. ... In addition ..., EPA may notify the small MS4 of the need to comply with additional requirements that are consistent with the assumptions and requirements of the Waste-Load Allocation (WLA).

Draft Permit, at 15. This requirement could impose significant BMP requirements for MS4 discharges that do not adversely influence the TMDL, particularly discharges that meet the New Hampshire water quality standards at end-of-pipe or discharges mitigated through the control of illicit discharges. In the latter case, the additional BMP requirements set forth in Appendix F should not be a requirement for compliance with the Draft Permit because the MS4 is already in compliance. Many of these TMDLs are seriously out of date or use TMDL derivation methods that do not comply with the CWA or implementing rules (*e.g.*, the methods do not determine the relative sources of the pollutants or document that a narrative criteria violation actually exists). Several of the TMDLs applied un-adopted standards to derive limitations. The permittees are seeking to revise/withdrawal these TMDLs and the proposed permit should acknowledge that if the TMDL is amended, the MS4 requirements are no longer applicable. (*See, e.g.* discussion below regarding the Statewide TMDL for Bacteria).

Finally, it is arbitrary and capricious for EPA to include a permit requirement allowing EPA to impose some as-of-yet unspecified condition without giving communities the opportunity to review the condition, comment on it, and, if necessary, appeal it. This violates the communities due process rights and is a form of self-executing permit modifications not allowed under the NPDES rules. Therefore, the final sentence of this section should be deleted.

²⁹ Previously, in 2000, EPA sought to adopt such a provision amending permitting requirements for dischargers to impaired waters. EPA decided to forgo rulemaking and never adopted the rule modification. Therefore, it is inappropriate for EPA to seek to establish such an offset requirement for the MS4 community through a permitting action.

2.2.1.c -- Discharges Subject to an Approved TMDL without a MS4 WLA

This provision provides that for TMDLs that do not specify a WLA for the MS4 discharge, if EPA determines that the “MS4 discharge is causing or contributing to such impairment to an extent that cannot be explained by atmospheric deposition (e.g., chemical spill, acid landfill leachate or other sources), the permittee shall comply with the requirements of Part 2.1.1.c.” Draft Permit, at 15-16. This requirement is unnecessary and completely unlawful. EPA does not possess statutory authority to unilaterally amend the conclusions of an approved TMDL, where an MS4 contributor was not identified as a significant component of the TMDL. Due process requirements apply to such actions and it is the State, not EPA that has the authority to set or amend TMDLs in the first instance. Moreover, any determination that the MS4 is causing or contributing to an impairment covered by a TMDL must be made through an amendment to the TMDL with the opportunity for public notice and comment.

2. For MS4s Subject to Approved TMDLs, it is Necessary to Demonstrate that the Receiving Waters are Actually Impaired and the MS4 is a Significant Contributor to the Impairment Before Imposing the Requirements in Appendix F

Small MS4s subject to an approved TMDL are subject to additional requirements specified in Appendix F (e.g., bacteria TMDLs; phosphorus TMDLs). Prior to implementing the onerous additional requirements specified in Appendix F, the permit should allow for confirmation that the (1) receiving waters are actually impaired by the specific parameter and (2) that the small MS4 is a significant contributor. As draft EPA guidance³⁰ states it may be appropriate to revise or withdraw an approved TMDL when (1) changes in water quality standards leading to a determination that the water body is no longer impaired and (2) water that was incorrectly placed on the Section 303(d) List. Draft EPA Guidance, at 13. The Draft Permit should incorporate provisions (e.g., an extended compliance schedule) that allow the permittee to evaluate whether either of these two situations apply to their receiving waters prior to imposing stringent BMP requirements on the permittee.

A number of the TMDLs referenced in the Draft Permit were all prepared under the *assumption* that the designated receiving waters were impaired. These impairment listings are not always accurate for a number of reasons. For example, waters may have been assessed as impaired due to a limited amount of data or unrepresentative data for the waterbody. Unidentified natural sources may have been responsible for the impairment listing but as no assessment occurred, the actual cause of the condition is unknown. Or, the listing may simply have been in error as was the case for the nutrient impairment listing for Paxton Creek in Pennsylvania (*i.e.*, the waters are simply not exhibiting a nutrient impairment). The Coalition has brought these issues to the attention of DES. The permit should provide an off-ramp that postpones compliance deadlines

³⁰ USEPA, Considerations for Revision and Withdrawing TMDLs: Draft for Review (Mar. 22, 2012), *available at* http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/Draft-TMDL_32212.pdf (“Draft EPA Guidance”).

for the Appendix F requirements while the State reviews the available data to determine if the impairment listing is in error.

Additionally, EPA is simply presuming that the MS4 contribution is significant, not rendering a demonstration, as required by federal law and applicable NPDES rules, that the MS4 is a significant contributor. The Draft Permit also imposes a moratorium on any development that creates a new discharge or increased discharge, as illustrated by the requirement at Section 2.1.2.b.iii as discussed above. The additional BMP requirements in Appendix F focus on runoff as causing or contributing to the impairment. However, as part of this permit, the permittee must identify and correct prohibited non-stormwater discharges which may correct the impairment. Moreover, the impairment may be attributed to other point sources or even natural conditions.

There are several problems with EPA's proposed approach. First, EPA may not hold the MS4 discharger presumptively responsible for an impairment occurrence or require the MS4 to investigate the cause of such impairment. That is the responsibility of the State and EPA under CWA § 303(d). *See* 40 C.F.R. Part 130. In any case, the additional BMP requirements are not necessary and the permit should provide an off-ramp to exempt the permittee from compliance with Appendix F requirements if the TMDL does not identify the MS4 as a significant contributor. Alternatively, the off-ramp should also apply if the permittee can demonstrate that the TMDL improperly characterized the MS4 as a significant contributor or some other non-MS4 source is the root cause of a particular impairment condition. These presumptions must all be eliminated from the permit as inconsistent with the statutory framework and adopted rules. *See* CWA §§ 301(b)(1)(C), 303(d); 40 C.F.R. §§ 122.44(d), 130.7.

3. Water Quality Standards Need to be Based On Current Data and Be Formally Approved

Under federal law, a state is required to update its water quality criteria once every three years to reflect the latest scientific information. CWA Section 303(d). If the state fails to undertake such activity, EPA should step in and ensure that the standards are current. Such action ensures that CWA requirements are both necessary and sufficient to protect the environment. In New Hampshire, water quality standards for bacteria, chloride, and phosphorus are based upon either outdated data or are unapproved standards. The use of these TMDLs to declare the need for MS4 designation as significant contributors and significant MS4 load reductions needs to be reconsidered as the analyses underlying these TMDLs plainly does not conform to either state or federal law and regulatory requirements.

Bacteria

The statewide bacteria TMDL was derived to comply with the New Hampshire water quality criteria for *Escherichia coli* (*E. coli*). These bacteria standards were adopted in 1996 and include geometric mean and single sample maximum (SSM) concentrations to protect recreational uses in fresh waters. These criteria are seriously out of date, contrary to Section 303(c) mandates and

should be updated. Specifically, the SSM criteria presented in EPA's 1986 Ambient Water Quality Criteria for Bacteria were never intended to serve as water quality criteria but were intended to be used for beach closure notifications as EPA explained in its BEACH Act rulemaking. Many of the impaired waters were listed based on an exceedance of the SSM and not on an exceedance of the geometric mean. The cause of such occurrences was never assessed and it is simply impossible to tell whether the MS4 had anything to do with the condition. It is also impossible to claim that contact recreation uses have been impaired based on a single sample reading, such an approach is not accepted by the scientific community. If the bacteria standards are updated to reflect EPA's 2004 Implementation Guidance, many of the waters currently listed as impaired would be removed from the 303(d) list and therefore, would not need to comply with the additional requirements specified in Appendix F for discharges to bacteria-impaired waters.

Chloride

The New Hampshire water quality criteria for chloride is out of date. Env-Ws 1703.21 (860 mg/L acute, 230 mg/L chronic for nontidal, Class B waterbodies). Criteria similar to those adopted by Iowa³¹ and Missouri³² and approved by EPA Region V and VII (based on the most recent toxicity testing data) should be considered for New Hampshire.

Phosphorus

Lake and pond phosphorus TMDLs were derived for multiple water bodies in January 2011. The State does not have numeric water quality standards for phosphorus. Rather, Env-Wq 1703.14 provides that nutrients shall not be present in concentrations that would impair any existing or designated uses, unless naturally occurring. In addition, there shall be no new or increased discharges of phosphorus into lakes or that would contribute to cultural eutrophication. *Id.* In developing the TMDLs, this standard was translated into a numeric endpoint based on a supposed "weight-of-evidence" assessment based on reference conditions and trophic state classifications such that a chlorophyll-a concentration of 15 µg/L was not exceeded. Each TMDL used the same translator based on this single assessment regardless of lake size, depth or other features affecting the presence of algae and phosphorus in the system.

³¹ See Attachment A- Iowa Department of Natural Resources, *Water Quality Standards Review: Chloride, Sulfate and Total Dissolved Solids* (Feb. 9, 2009) available at http://www.iowadnr.gov/portals/idnr/uploads/water/standards/ws_review.pdf.

³² See 10 CSR 20-7.031(4)(A) Table A- Criteria for Designated Uses, available at <http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-7a.pdf>.

The reference condition assessment is not appropriate for establishing a threshold for impairment as confirmed by US District Court for the Northern District of Florida³³ when it reviewed EPA's numeric nutrient criteria for Florida streams. At a minimum, the methodology used to establish the total phosphorus (TP) endpoint for all lakes should be reconsidered in light of the Court's ruling. Moreover, the establishment of a fixed TP criteria or maximum algal bloom levels applicable to all lakes plainly constitutes the adoption of new numeric criteria that should have undergone rulemaking, but did not. *See* Attachment B- EPA letter to the State of Florida dated June 27, 2013. TMDLs based on un-adopted criteria are not lawfully derived TMDLs.

Under state law, the specific factors influencing cultural eutrophication in lakes should have been considered using a conceptual model allowing for individual considerations for lakes with significantly different attributes that influence this response. None of these TMDLs appear to properly implement the applicable state law nor is it reasonable to claim that a narrative criteria violation exists simply because there are windblown algal mats (something that can occur naturally) in some corner of the lake that may or may not significantly affect swimming uses of the water body. It is not apparent how this condition can impair swimming or aquatic life uses. Likewise, the occurrence of short term algal growth above 15 µg/l is not indicative of cultural eutrophication as such conditions may occur in healthy ecosystems.

4. Additional Requirements for MS4 Discharges to Impaired Waters Without an Approved TMDL Are Improper Without a Demonstration that the Receiving Water is Impaired and the MS4 is a Significant Contributor.

Small MS4s discharging to impaired waters without an approved TMDL are subject to additional requirements in Section 2.2.2 of the Draft Permit and Appendix H. The application of these additional requirements is predicated on the assumption that the receiving waters are, once again, in fact impaired and that the MS4s are significant contributors to the impairment. Again, like discussed above, this presumption is not authorized by federal law. The federal program does not establish a "guilty until proven innocent" framework. Moreover, as discussed above, if either of these assumptions are shown to be incorrect, the additional requirements specified in Section 2.2.2 should be waived.

The additional requirements specified in Appendix H for municipalities within the Great Bay Estuary watershed should be removed from the Draft Permit as they are unnecessary. The nitrogen impairment designation for this watershed is being contested by the Great Bay Municipal Coalition, as well as the 303(d) listing.³⁴ The nitrogen impairment designation was

³³ *Florida Wildlife Federation, Inc. et. al. v. Jackson*, Case 4:08-cv-00324-RH-WCS, Doc. 351 (N.D. Fla. February 18, 2012).

³⁴ DES recently submitted its final 2012 303(d) List to EPA for approval. *See* Attachment C- New Hampshire Department of Environmental Services, *Final 2012 303(d) Surface Water Quality List Submitted to EPA* (July 19, 2013). Virtually all the listings indicate the impairment source is unknown and at many of the locations multiple

based on the New Hampshire Department of Environmental Services 2009 draft document entitled “Numeric Nutrient Criteria for the Great Bay Estuary.” (“2009 Draft Criterion”). This document was never adopted as a final criterion or approved by EPA as required under CWA Section 303(c). Moreover, the Great Bay Municipal Coalition has provided ample documentation to show that the Estuary is not nitrogen-impaired and the 2009 Draft Criterion is not scientifically defensible. *See In re Town of Newmarket*, EAB Appeal No. NPDES 12-05 (Dec. 14, 2012), *available at* <http://go.usa.gov/4yYR>; Attachment D- Affidavit of Dr. Steven Chapra. The loss of eelgrass in the Great Bay system is tied to a major meteorological event not nutrient impairment. University of New Hampshire experts familiar with the system indicated that studies did not confirm nitrogen was the cause of eelgrass declines or low DO in the tidal rivers. (Attachments E and F- Letters to/from Drs. Richard Langan Stephen Jones; Attachment G- 2013 Piscataqua Region Estuaries Partnership State of the Estuaries Report)). EPA cannot ignore all of this readily available information in issuing this draft permit. *See generally* 40 C.F.R. § 122.44(d). This matter is currently scheduled to undergo a scientific peer review and it would be arbitrary and capricious for the Agency to impose the Appendix H requirements before this issue is resolved or to fail to respond to the specific information showing that MS4 nutrient contributions from the communities is not the factor controlling eelgrass populations or the transparency level found in the Great Bay system.

5. Before Imposing Additional Requirements on MS4s Discharging to Impaired Waters, an Assessment on Whether the Receiving Waters are Impaired for the Particular Parameter in Question Needs to Be Conducted

The Draft Permit presumes that controls beyond the standard requirements are necessary for MS4s discharging into impaired waters. This assumption needs to be assessed before municipalities are forced to implement expensive controls. In assessing whether the receiving waters are impaired for the particular parameter in question, the factors that should be considered include whether the data exhibit existing water quality standard exceedances, the amount of data available, the age of the data, the return frequency of any observed exceedances, and whether the impairment status will change if the criteria are updated. Thus, the following factors must be assessed before MS4 provisions and additional requirements are imposed:

Existing Water Quality Standard Exceedances

The provisions of 40 C.F.R. § 122.44(d) mandate that permit decisions for more restrictive water quality based limits be based on current data and facility performance. In some cases, impaired water listings in New Hampshire are based upon outdated data and the impairment listings need to be updated to reflect current conditions. For example, data collected prior to 2003 may not

parameters are impaired including unusual toxics. EPA’s approach would entail detailed testing and analyses of all of the parameters listed in the DES 2012 303(d) list by assuming the MS4 is a significant contributor.

reflect the current conditions in the receiving water since municipalities have implemented requirements under the 2003 General Permit and may have implemented additional CSO controls, other collection system improvements, or mitigated illicit discharges. Therefore, the impairment listings do not reflect the waters current condition. The status of the receiving water should be confirmed before needless BMPs are implemented or small communities are subject to Draft Permit provisions.

Insufficient Data

The available data, upon which the original assessment was made or upon which a current assessment is being considered, must be sufficient to confirm that an impairment actually exists. This is particularly a concern for parameters with an extended averaging period (*e.g.*, bacteria – 60 day averaging period for the geometric mean; nutrients – typically considered a growing season average). If the available data are over-represented by wet weather conditions, the resulting impairment assessment will not reflect ambient conditions for the relevant averaging period of the criteria.

Age of Data

The data upon which impairment assessments are made must reflect current conditions to characterize existing conditions, particularly where point sources have been mitigated or where stormwater management practices have been implemented. 40 C.F.R. § 122.44(d)(2). If the only available data is five years or older or if there significant watershed improvements have been made, then current data must be obtained to confirm that impairments still exist before additional BMP requirements are imposed.

Return Frequency

Water quality criteria are based on magnitude, duration, and frequency of exceedances. Individual exceedances of the magnitude and duration components of a water quality standard are acceptable provided the return frequency of these exceedances does not exceed once in three years on average. The impairment assessment data must be sufficient to demonstrate that the return frequency of the water quality criterion is exceeded before declaring waters impaired. If these data are not available, additional data must be collected before additional BMP requirements are imposed.

6. Before Imposing Additional Requirements on MS4s Discharging to Impaired Waters, An Assessment of Other Factors Which May Significantly Contribute to the Impairment Needs to Be Conducted

If the waters are confirmed to be impaired, an assessment must be made to determine whether stormwater runoff is significantly causing or contributing to the impairment and whether the targeted BMPs will address this impairment. Definitive answers may not always be available, and prudence suggests that before extra BMPs be implemented, an “adaptive management” approach be used to confirm whether such controls will address the existing impairment. However, where data is available, it should be used to decide whether the extra BMPs must be implemented. This information can include data demonstrating that the observed impairment is due to natural conditions, or that the impairment is caused by point sources (non-MS4 sources), illicit discharges through MS4s, or non-MS4 runoff. Thus, the following issues must be assessed before MS4 provisions and additional requirements are imposed:

Natural Conditions

Surface waters are not considered to be impaired if the water quality criteria exceedances are due to natural conditions. For example, Env-Wq 1703.21(a) (Water Quality Criteria for Toxic Substances) provides, “[u]nless naturally occurring or allowed under part Env-Wq 1707, all surface water shall be free from toxic substances or chemical constituents ...” (emphasis added). This consideration applies to all waters of the state and, in particular, to the following parameters: aluminum (natural weathering), bacteria (warm-blooded animals), dissolved oxygen (natural hydrodynamic conditions), and nutrients (natural weathering, seasonal leaf litter). A water quality criteria exceedance and therefore, an impairment, cannot be caused by a natural condition.

Point Sources

If an impairment is caused by a point source discharge and could be mitigated by point source control, then the extra MS4 BMPs referenced in Section 2.2 of the Draft Permit are unwarranted and should not apply. In this case, point sources include failing septic systems.

Illicit Connections/Other Sources

If an impairment is due to an illicit discharge through the MS4, the Draft Permit already includes ample provisions for addressing illicit discharges (*i.e.*, Section 2.3.4) and the extra MS4 BMPs referenced at Section 2.2 are not warranted. Similarly, if other sources are identified and control of these sources is sufficient to restore compliance with the State water quality criteria, the extra BMPs would not be warranted.

Non-MS4 Runoff

Runoff from agricultural fields that have been fertilized with manure can yield exceedingly high concentrations of *E. coli*. The extra MS4 BMPs referenced at Section 2.2 cannot mitigate agricultural runoff; consequently, imposition of these extra BMPs is not warranted.

7. With Regards to the Bacteria Water Quality Standard, it is Unclear How the Determination that a MS4 is Causing or Contributing to an Exceedance of the Bacteria Standard Will be Made

The Draft Permit does not specify how the determination that a MS4 is causing or contributing to an exceedance of the bacteria standard will be made. The Draft Permit subjects permittees to additional requirements for limiting the discharge of *E. coli* under Part 2.2 of the Draft Permit. See Part 2.2.1 – Requirements to Meet Water Quality Standards; Part 2.2.1 – Discharges Subject to an Approved TMDL; Part 2.2.2 – Discharge to an Impaired Water without an Approved TMDL. Part 2.1.1(c) provides that if the permittee, EPA, or the State determines that a discharge causes or contributes to an exceedance of the water quality standard, the permittee must eliminate the cause of the exceedance or develop a Water Quality Response Plan (“WQRP”) pursuant to Part 2.2.2. The WQRP identifies additional or modified BMPs that will be implemented to ensure that the MS4 does not cause or contribute to the impairment.

The following comments are based on the assumption that the agency will use the Statewide TMDL for Bacteria (September 2010) (“Bacteria TMDL”) to make such determinations. The Bacteria TMDL is thoroughly confusing and is an inconsistent document. The Bacteria TMDL makes no demonstration showing that MS4 control is necessary to achieve compliance with the applicable bacteria water quality standards or that the allocations in the TMDL will result in compliance. In fact, the approved TMDL specifically states that instream water quality, not an end-of-pipe limitation, will control whether or not the criteria are achieved. Bacteria TMDL, at 35.

Additionally, the Bacteria TMDL failed to undertake basic TMDL assessments such as identifying the sources of the impairment prior to deriving a regulatory approach, considering the fate or transport, and considering available dilution. Consequently, the document never should have been accepted by DES or approved by EPA. Recognizing these deficiencies, the TMDL does not set specific effluent limitation requirements:

The underlying assumption in setting a concentration-based TMDL for bacteria is that if all sources are less than or equal to the WQS, then the concentration of bacteria within the receiving water will attain WQS. This methodology implies a goal of meeting bacteria standards at the point of discharge for all sources. Although end of pipe bacteria measurements can identify and help prioritize sources that require attention, compliance with this TMDL will be based on

ambient water quality and not water quality at the point of discharge (*i.e.*, end of pipe).

Bacteria TMDL, at 35 (emphasis added). This is a facially deficient TMDL.

As stated above, the TMDL was developed without an allowance for dilution, but compliance will be evaluated based on ambient water quality, which factors in dilution. This inconsistency is reiterated in Appendix F of the Draft Permit.

The WLA for MS4 discharges is set at the relevant water quality standard, although compliance with the TMDL will be based on ambient water quality and not water quality at the point of discharge (*i.e.*, end of pipe).

Draft Permit Appendix F, at 5. Given that the intent of the TMDL and the permit is to determine compliance via ambient measurement, dilution and die-off can and should be considered in determining whether an MS4 discharge causes or contributes to a bacterial impairment. Contrary to the assessment that the TMDL provides high confidence in compliance with water quality standards, the TMDL never addressed the actual source of bacteria causing the apparent impairment. Consequently, the need to regulate MS4s is not demonstrated. More importantly, load allocations applicable to wildlife waste, agricultural runoff, and contact recreation cannot be limited in the manner perceived by this TMDL. Without some demonstration that these sources are not responsible for the impairment, it is unclear if the Statewide TMDL for Bacteria will achieve its goal of restoring designated uses for contact recreation.

The objective of a TMDL is not to prevent a discharge from “causing or contributing” to a condition; it is to achieve the applicable standard. The “cause or contribute” prohibition does not exist under either CWA § 303(d) or any rule applicable to existing discharges to impaired waters. This is only a prohibition to new dischargers to impaired waters (40 C.F.R. § 122.4(i)). Thus, EPA applied the wrong regulatory regime to the development of these MS4 requirements.

Finally, the Draft Permit indicates that the WQRP must include a public education and “pooper scooper” program, increased street sweeping, and an Illicit Discharge program (already required by 2003 General Permit). As part of the Illicit Discharge program, catchments draining to the TMDL waters must be designated either Problem Catchments or High priority for implementation of the Illicit Discharge Detection and Elimination program. Again, these requirements may only be reasonable if MS4 control is necessary to restore the designated use, but the Statewide Bacteria TMDL made no such determination. That is a required demonstration for EPA or the State, not for EPA to transfer to the MS4 community. These requirements are arbitrary and should only be imposed where determined necessary.

8. The Water Quality Criteria for Bacteria is Out of Date and Needs to be Updated

The New Hampshire primary contact recreation water quality standards for bacteria were promulgated in 1996, and are out of date. The bacteria criteria for New Hampshire state waters are specified in Section 485-A:8 (Standards for classification of surface waters of the State), as follows:

Class	Use Type	Bacteria Type	Geometric Mean	Single Sample
A	Beach	<i>E. coli</i>	47	88
A	Non-beach	<i>E. coli</i>	47	153
B	Beach	<i>E. coli</i>	47	88
B	Non-beach	<i>E. coli</i>	126	406
Tidal	all	Enterococci	35	104

The geometric mean criteria for bacteria specified in Section 485-A:8 for Class B and tidal waters are the same criteria developed by USEPA under the 2004 Beach Environmental Assessment and Coastal Health (BEACH) Act, which are identical to EPA's 1986 ambient water quality criteria for bacteria. *See* 69 Fed. Reg. 67,218 (Nov. 16, 2004). These criteria were established to provide public health protection equivalent to the existing fecal coliform water quality objectives (0.8% risk in freshwater and 1.9% risk in marine waters of gastrointestinal illness to swimmers from the inadvertent ingestion of 100 ml of water through body contact recreation) originally recommended by EPA in 1986. *See id.* at 67,220, 67,233.

The 1986 EPA water quality criteria for bacteria provided geometric mean density criteria for freshwater enterococci (33/100 mL), freshwater *E. coli* (126/100 mL), and marine enterococci (35/100 mL) as well as four different SSM values for each criterion. As indicated above, the DES has adopted the freshwater *E. coli* and marine enterococci geometric mean water quality standards.

The SSM values presented in the 1986 criteria and in the BEACH Act represent a continuum along a statistical distribution, for a standard deviation of 0.4 in freshwater and a standard deviation of 0.7 in marine waters, that was developed to provide public health officials with a tool for making informed decisions to open or close beaches based on a limited amount of data. That continuum for each criterion was defined as:

$$\textit{E. coli} \text{ (freshwater)} \quad SSM_P = 10^{(\log_{10}(126) + 0.4Z_P)} \quad [1a]$$

$$\text{Enterococci (marine waters)} \quad SSM_P = 10^{(\log_{10}(35) + 0.7Z_P)} \quad [1b]$$

where:

SSM_P = single sample maximum allowable density for indicated probability, P
Z_P = factor determined from areas under normal probability curve for the assumed level of probability, P
P = level of probability

The SSM in Section 485-A:8 for Class B, non-beach waters identify the bacteria concentrations approximately associated with the 90th percentile of the distribution of *E. coli* identified by EPA for fresh waters. The SSM for Tidal waters is the 75th percentile of the distribution for Enterococci identified by EPA for marine waters. As noted by EPA, application of the SSM values to generate daily maximum limitations in an NPDES permit would result in regulating *E. coli* or Enterococci in a manner far more restrictive than intended by the water quality standard:

Other than in the beach notification and closure decision context, the geometric mean is the more relevant value for ensuring that appropriate actions are taken to protect and improve water quality because it is a more reliable measure, being less subject to random variation, and more directly linked to the underlying studies on which the 1986 bacteria criteria were based.

69 Fed. Reg. 67,224 (Nov. 16, 2004).

The single sample maximum values in the 1986 bacteria criteria were not developed as acute criteria; rather they were developed as a statistical construction to allow decision makers to make informed decisions to open or close beaches on small data sets ... single sample maximums were not designed to provide a further reduction in the design illness level provided for by the geometric mean criterion ... Based on the derivation of the single sample maximums as percentiles of a distribution around the geometric mean, using the single sample maximums as values not to be surpassed for all Clean Water Act applications, even when the data set is large, could impart a level of protection much more stringent than intended by the 1986 bacteria criteria document.

69 Fed. Reg. 67,225 (Nov. 16, 2004).

If the SSM is used as a “not to exceed” value, as it is in the existing DES criteria, it would impose a level of protection far more stringent than that intended by EPA to protect contact recreation uses. For example, EPA typically uses the 99th percentile of a distribution ($Z_P = 2.326$) to assess compliance with regulatory maximums. Equation [1a] may be used to back calculate the actual geometric mean needed to keep a receiving water concentration below the *E. coli* maximum value of 406 colonies/100 ml, assuming the same standard deviation (0.4) employed by EPA in deriving the national criteria. For this case, the corresponding geometric

mean is 48 colonies/100 ml. This geometric mean is far more stringent than the level of protection provided by the actual geometric mean criterion – 126 colonies/100 ml. Similarly, for enterococci, the maximum concentration of 104 colonies/100 mL is equivalent to a corresponding geometric mean of 2.4 colonies/100 mL while the actual geometric mean criterion is 35 colonies/100 mL.

The geometric mean indicator density for *E. coli* in fresh water and enterococci in marine waters are based on Equation [2a] and Equation [2b], respectively.

$$\text{freshwater} \quad E.coli = 10^{(I+1.74)/9.40} \quad [2a]$$

$$\text{marine waters} \quad Enterococci = 10^{(I-0.20)/12.17} \quad [2b]$$

where:

E. coli = geometric mean E. coli density (colonies/100 ml)
 Enterococci = geometric mean Enterococci density (colonies/100 ml)
 I = illness rate per 1,000 people

See 69 Fed. Reg. 67,221 (Nov. 16, 2004). Solving Equation [2a] for a geometric mean of 48 colonies per 100 ml yields an illness rate of 4.0 per 1000 people. This level of protection is double the acceptable swimming associated gastroenteritis rate (8 per 1,000 people) targeted by EPA. Similarly, solving Equation [2b] for a geometric mean of 2.4 colonies per 100 mL yields an illness rate of 4.9 per 1000 people. This represents a level of protection approximately 300% greater than the target rate of 19 per 1,000 people, assuming application of the criteria as a daily maximum is appropriate at all. As demonstrated above, the current DES water quality standard is much more restrictive than the underlying EPA standard, without any rationale supporting the more restrictive requirements.

Additionally, EPA's guidance on coordinating CSO requirements with water quality standards³⁵ does not support such an approach and makes recommendations for reconciling the two requirements. In providing this guidance, EPA intended that states integrate water quality standards reviews, implement high-priority CSO controls, and develop Long Term Control Plans that support attainment of water quality standards without causing substantial and widespread economic and social impacts. This integration would include a review of state water quality standards and revision as appropriate to ensure that the applicable water quality standards are attainable. The guidance notes that, depending upon the CSO impacts, possible water quality standard revisions could include:

³⁵ Guidance: Coordinating CSO Long-Term Planning with Water Quality Standards Reviews. 2001. EPA-833-R-01-002. (CSO Guidance).

1. Applying the *Ambient Water Quality Criteria for Bacteria – 1986* (i.e. *E. coli* or enterococci) at the beach or at the point of contact rather than at the end-of-pipe or at the edge of the mixing zone where permits may require compliance with other criteria;
2. Segmenting the water body to preserve recreation in areas where it actually occurs;
3. Revising the use by creating subclasses to recognize intermittent exceedances of bacteriological criteria.

CSO Guidance, at 5. At a minimum, the bacteria standards should be revised to incorporate the most recent, promulgated criteria and their proper application. Alternatively, every MS4 could file a site-specific request to ensure the proper application of the criteria.

9. The Water Quality Criteria for Bacteria Needs a Specified Return Frequency

Water quality criteria consist of three components: (1) magnitude, (2) duration and (3) frequency.³⁶ A typical frequency component requires that the magnitude and duration components are not exceeded more frequently than once every three years on average. The criteria presented in Section 485-A:8 present the magnitude (the allowable concentration) and duration (averaging period) components, but is silent regarding the frequency (how often criteria can be exceeded) component.

The 2012 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology (2012 CALM) presents Use Support Matrices for Bacteria that shed light on the frequency component used by the State. The Use Support Matrix for Bacteria (Primary Contact Recreation) (Table 3-19 of the CALM) indicates that the primary contact recreation designated use is not supported if there are one or more exceedances of the geometric mean criterion and/or two or more exceedances of the SSM criterion.

This interpretation of the New Hampshire water quality criteria is more stringent than the “once in three years on average” frequency typically used by water quality criteria. However, this basis is predicated on an assessment of the most recent full calendar year of data (or years if there was insufficient data in the most recent year to make an assessment). To be fully supporting the designated use, there must be sufficient data to make an assessment during the peak contact recreation season (May 24 – September 15).

The bacteria criteria should be revised to incorporate a return frequency consistent with the CWA requirements and EPA Guidance. Likewise a seasonal application of such standards is appropriate as contact recreation is not possible during cold periods when hypothermia would

³⁶ See EPA Technical Support Document for Water Quality-based Toxics Control (1991), at 32.

occur from swimming. Swimming during major storms with dangerous currents should also not be assumed and elevated bacteria under those conditions should not constitute an impairment since the use cannot physically exist under those conditions. At a minimum, impairment listings should be based on three consecutive years of data with at least one geometric mean during the peak contact recreation season exceeding the applicable criteria.

10. The Impairment Listings for Bacteria are Suspect

Data supporting the impairment listings for the statewide Bacteria TMDL were provided in the appendices with the TMDL. One of these appendices (Appendix H) was reviewed to assess whether the impairment listing was reasonable given the general considerations identified above and the specific concerns with the bacteria water quality standard. Data supporting the impairment listings for the Merrimack River Watershed were presented in Appendix H of the Statewide Bacteria TMDL. This appendix presents data for 81 Assessment Units (AUs) that are considered impaired. The first 15 of these AUs were reviewed and the results are summarized below.

AU	Beach	Period of Record	Number of Exceedances		Comments
			GM	SSM	
H1	Yes	1998-2007	0	2	No exceedances after 2003
H2	No	2002-2007	0	2	No exceedances in 2007
H3	No	2000	1	2	Insufficient data
H4	No	2001	1	1	Insufficient data
H5	No	2002-2003	1	1	Insufficient data
H6	No	2000	1	1	Insufficient data
H7	No	2000	1	1	Insufficient data
H8	No	2002-2007	2	2	Exceedances in 2007 only
H9	No	2002-2007	0	2	1 dry, 1 wet weather exceedances
H10	No	2002-2007	0	2	1 dry, 1 wet weather exceedances
H11	Yes	1998-2007	0	8	Localized exceedances
H12	Yes	1998-2005	0	3	Localized, low level exceedances; No exceedances after 2001
H13	Yes	2002-2007	0	4	Localized, low level exceedances
H14	No	2004-2007	0	3	High level exceedances
H15	No	2000-2007	0	9	No exceedances after 2004

- AU H1 (Sondogardy Pond) and H2 (Merrimack River) have sufficient data in the last year of record to confirm full use support. The data for AUs H3 – H7 are insufficient to make any decision on impairment. Even if the available data for these sites show highly

elevated levels of bacteria, the data are over 10 years old and management practices implemented with the 2003 General Permit may have resolved the old impairment issues. Updated data is required to confirm the impairment status of these AUs.

- AU H8 (The Merrimack River – Garvins Falls) exhibited two exceedances of the geometric mean and SSM criteria over a six year period of record. Since this site is not a beach, the SSM criteria should not be applied (consistent with EPA BEACH Act recommendations). The remaining two geometric mean exceedances fall within the once-in-three-year allowable exceedances frequency, suggesting that this site is not impaired. Moreover, the only two high bacteria readings (3,250, 460 CTS/100 mL) occurred during dry weather, suggesting that stormwater BMPs would not be effective in reducing bacteria levels.
- AU H9 (Merrimack River) and H10 (Merrimack River – Garvin Falls Bypass) each exhibited two exceedances of the SSM criterion. Both AUs are not beach areas and the SSM should not be applied. If the SSM does not apply, these AUs would be considered fully supporting designated uses. Even with application of the SSM criterion, the observed exceedances do not surpass the acceptable exceedances frequency, indicating that the site is not impaired.
- AU H11 (Crystal Lake – Town Beach) is a beach and it has experienced 8 SSM criterion exceedances over the 10-year period of record. None of the exceedances were reported under wet weather conditions (although this condition was seldom reported). The monitoring data was reported for the left, center, and right sides of the beach with several of the exceedances localized to one section of the beach. This pattern is consistent with a natural cause (*i.e.*, *E. coli* shedding from bathers). No data was presented to suggest that stormwater runoff contributes to these exceedances or that the additional BMPs contained in Appendix F will have any effect on the impairment listing.
- AU H12 (Upper Suncook Lake – Camp Fatima Beach) is a beach with 3 reported SSM criterion exceedances over an 8 year period. There have been no exceedances reported since 2001, although the lake was only sampled twice in 2002, 2004, and 2005, with a high *E. coli* level of only 8 CTS/100 mL in these three years. Monitoring data were reported for the left and right sides of Camp Fatima with SSM exceedances only reported on one side or the other, but not both. As discussed above, this pattern is consistent with a natural cause (bathing). This AU should not be subject to a TMDL given the limited record, lack of any exceedances in the last three years of sampling, and the possible natural cause of the older exceedances.

- AU H13 (Berry Pond Brook – Town Beach) is a beach with 4 reported SSM criterion exceedances over the 6 year monitoring period. Measurements are made at the left, center, and right of the recreation area of the beach. *E. coli* concentrations have been reported at low levels during wet weather conditions with only one cluster of SSM exceedances (left, center, and right sides on a single day) reported in the last two years of record. These observations suggest a natural source of contamination (*e.g.*, bathing) and, along with the wet weather data, suggest that stormwater control will have no effect on conditions in the lake.
- AU H14 (Jenness Pond) is not designated as a beach. The record includes 6 observations in 2004, 7 observations in 2005, and a single observation in 2007. There were three SSM criterion exceedances in 2004-2005, with one exceedance reported at 23,300 CTS/100 mL. No information is presented on the weather conditions (wet or dry) associated with these observations, but the station name included in the Appendix suggests that a horse farm is located adjacent to the pond. The data is sparse and new data should be collected to assess the impairment status of the pond. Even so, these data do not suggest that a “pooper scooper” program will have a significant effect on bacteria levels in this pond.
- AU H15 (Northwood Lake) is not designated as a beach. The record includes 8 years of data, with adequate monitoring to assess the geometric mean in 2002 and 2004 – 2007. There were no reported geometric mean exceedances and the SSM criterion was exceeded 4 times in 2002 and 5 times in 2004. No additional exceedances were reported in the last three years of monitoring. This lake should not be listed as impaired.

Based on this summary, virtually all 15 AUs should be removed from the impaired waters list. For some, the data clearly indicates that primary contact recreation use is not impaired. For others, there is clearly not enough data or recent data upon which a determination of impairment can be made. Regardless of the impairment listing, there is no data presented to determine whether MS4s cause or contribute to exceedances of the bacteria standard and there is no factual basis to conclude that the MS4 communities are significantly contributing to use impairment. The impairment listings for these AUs should be revisited and the other impairment listings should be reviewed to determine whether they suffer from the same deficiencies. In any event, it is apparent that the mere listing of a water body as impaired is not substantial evidence or legally sufficient to conclude that (1) a more restrictive MS4 permit should be imposed or (2) that the community is causing or contributing to the condition. The provisions of the proposed permit that are based on such assumptions are plainly arbitrary and capricious and should be withdrawn.

With regards to EPA’s or the State’s determinations under Part 2.2.1(c) of the Draft Permit, the type of assessment included in the Bacteria TMDL is also not sufficient to render any type of defensible determination that further MS4 corrective measures or regulatory controls are necessary to ensure standards compliance. Before these conditions are imposed, the source of *E.*

coli contamination must be determined to ensure that MS4 control is necessary to maintain the primary contact recreation use with consideration for dilution and die-off, as intended by the TMDL.

11. The Bacteria Water Quality Criterion is An Inappropriate Threshold for Evaluating Illicit Connections

Throughout the Draft Permit there are references to the use of sampling data to assess whether illicit connections are present. *See, e.g.*, Draft Permit, at 32. This screening includes analyses for bacteria, with bacteria levels in excess of the water quality criteria serving as an indicator of a potential sanitary connection. The water quality criterion is an inappropriate threshold for evaluating illicit connections to sanitary wastewater and there is no justification presented in the Draft Permit that would support such a low level of bacteria as indicative of illicit connections. This appears to be yet another unsupported regulatory presumption (*i.e.*, if a criteria is exceeded, presume the MS4 is the source and require a study of that system). EPA should look to state policy applicable on this issue, prior to imposing its own approach, as required by 40 C.F.R. § 122.44(d). An appropriate bacteria concentration to indicate a potential sanitary connection is >2,000 cts/100 mL. *See* 2012 CALM, at 37.

12. MS4s Should Not be Responsible for Deicing Activities They Do Not Control and Communities Should Not Have to Sacrifice the Safety of Their Citizens for Fear of Causing or Contributing to a Chloride Impairment

The Draft Permit subjects permittees to additional requirements for limiting the discharge of chloride under Part 2.2 of the draft permit. *See* Part 2.1.1 – Requirements to Meet Water Quality Standards; Part 2.2.1 – Discharges Subject to an Approved TMDL; and, Part 2.2.4 – Discharge to Chloride-Impaired Waters. Part 2.2.1(d) requires permittees subject to an approved TMDL for chlorides to meet the requirements specified in Appendix F. Part 2.2.4 requires municipalities with MS4s located in areas with chloride-impaired waters without a TMDL to comply with the requirements specified in Appendix H. These requirements are technically flawed as each TMDL will provide the basis for knowing whether or not MS4 activities are significant (as opposed to regional highway and road authorities). The MS4 community may not be held responsible if it is not the party controlling deicing activities. Moreover, assuming BMPs are required, without assessing the need for and causes of the alleged chloride impairment is legally and technically deficient. Under such circumstances, there is no scientifically defensible basis for choosing and imposing BMPs.

The BMPs specified in Appendix F and Appendix H are essentially identical, which effectively imposes mandatory BMPs whenever chloride is identified as an issue in downstream waters. For waters identified as exceeding the applicable water quality criteria (860 mg/L acute; 230 mg/L chronic), the permittee is required to develop and implement a Salt Reduction Plan. The Salt Reduction Plan includes requirements for surfaces maintained by the municipality as well as

requirements for private areas that drain to the MS4s. Many of these requirements seem reasonable, particularly those practices geared toward preventing the over-use of deicing salts. However, public safety cannot be compromised in an effort to mitigate criteria exceedances as provided in the recommended BMPs, especially when the extent of a communities' contribution to the alleged chloride impairment is unknown.

For example, the draft permit calls for the development of Salt Reduction Plans that call for the designation of "no salt" and "low salt" zones. While such designations may be acceptable under typical road conditions, these designations cannot serve as a prohibition on salt use should road conditions become treacherous or beforehand, to prevent that condition. Similarly, public education on the impacts and use of salt on private property is reasonable, but does not ensure that salt loads will be reduced from these sources. Public education on modifications to driving behavior in winter weather is not a substitute for safe driving conditions. In any event, the mandatory application of BMPs must be tied to demonstrated, not presumed needs. CWA § 301(b)(1)(C).

13. The Water Quality Criteria for Chloride is Outdated

The New Hampshire aquatic life water quality criteria for chloride at Env-Wq 1703.21 was based on the original recommendations made by EPA in 1988, using the procedures specified in the 1985 Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses. The 1988 Criteria are based on an evaluation of very limited toxicity test data. Since the 1988 recommendations, the database for the toxicity of chloride to aquatic organisms has expanded greatly to include additional organisms, allowing for the 1988 criteria to be recalculated in accordance with CWA requirements to reflect the latest scientific information. EPA has approved updated standards in several states, as required by Section 303(c) and 304(a) of the Act.

Other states have upgraded their water quality standard for chloride using the latest science, which indicates that chloride toxicity is a function of hardness and sulfate concentration. For example, the Iowa Department of Natural Resources (IDNR) published a water quality standards review for chloride in February 2009.³⁷ Similar criteria were also adopted by the State of Indiana and approved by EPA in 2012.³⁸ This review presented the new data obtained since the original chloride criterion was developed by EPA in 1988. As part of the effort, IDNR working together with EPA, performed a literature search to update and recalculate the 1988 acute and chronic chloride criteria based upon new toxicity data deemed acceptable following the 1985

³⁷ Iowa Department of Natural Resources, *Water Quality Standards Review: Chloride, Sulfate and Total Dissolved Solids* (Feb. 9, 2009) available at http://www.iowadnr.gov/portals/idnr/uploads/water/standards/ws_review.pdf.

³⁸ See 327 IAC 2-1-6(a)(5) available at <http://www.in.gov/legislative/iac/T03270/A00020.PDF>.

EPA Guidelines. Subsequently, IDNR adopted and EPA approved revised aquatic life criteria for chloride based on hardness and sulfate concentration.³⁹

$$CMC = 287.8(Hardness)^{0.205797}(Sulfate) - 0.07452$$

$$CCC = 177.87(Hardness)^{0.205797}(Sulfate)^{-0.07452}$$

The revised chloride criteria are equivalent to an acute criterion of 629 mg/L and a chronic criterion of 389 mg/L for a hardness concentration of 200 mg/L (as CaCO₃) and a sulfate concentration of 63 mg/L (default values used by Iowa in Table 1). Missouri has also adopted the same aquatic life criteria for chloride.⁴⁰

The two other adjacent, downstream states (Wisconsin and Illinois) also have updated water quality criteria for chloride; however, these criteria are not dependent on hardness or sulfate. Wisconsin updated its aquatic life water quality criteria for chloride in 2000 based on an evaluation of new data and used the 1985 Guidelines approach for criteria development.⁴¹ The revised acute water quality criterion for chloride is 757 mg/L and the chronic criterion is 395 mg/L.⁴² Illinois has a chronic chloride water quality criterion of 500 mg/L.⁴³

States are supposed to update criteria to reflect the latest scientific information. CWA §§ 304(a), 303(c). The need for enhanced BMPs to control chloride loads to impaired waters should be evaluated against the updated criteria to assess whether the proposed controls are necessary. In any event, EPA should encourage New Hampshire to adopt updated, revised criteria and defer implementation of the proposed BMPs in waters that are not impaired based upon the updated criteria. Relying on outdated standards misdirects and wastes local resources and is inconsistent with the requirements of the Act.

³⁹ See IAC 567-61.3(3) Table 1- Criteria for Chemical Constituents, *available at* <https://www.legis.iowa.gov/DOCS/ACO/IAC/LINC/Chapter.567.61.pdf>.

⁴⁰ See 10 CSR 20-7.031(4)(A) Table A- Criteria for Designated Uses, *available at* <http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-7a.pdf>.

⁴¹ See Attachment H - Jim Schmidt, WDNR, *Derivation of Acute and Chronic Toxicity Criteria for Chloride* (Jan. 2000), *available at* http://www.epa.gov/gliclear/pdfs/wi_al_134_01012001.pdf.

⁴² See WDNR NR 105.06, Table 1- Acute Toxicity Criteria for Substances with Toxicity Unrelated to Water Quality and Table 5- Chronic Toxicity Criteria Acute- Chronic Ratios for Substances with Toxicity Unrelated to Water Quality, *available at* <http://dnr.wi.gov/topic/SurfaceWater/codes/nr105.pdf>.

⁴³ See 35 Ill. Adm. Code 302.208(g)- Illinois Numeric Standards for Chemical Constituents, *available at* <http://www.ipcb.state.il.us/documents/dsweb/Get/Document-33354/>.

14. The Phosphorus Endpoint is Not Scientifically Defensible

Appendix F to the Draft Permit specifies that the permittees subject to phosphorus TMDLs must prepare a Phosphorus Control Plan (PCP) and demonstrate compliance with the TMDL through implementation of structural and non-structural BMPs. The phosphorus reduction requirements for each phosphorus TMDL are summarized in Table F-3, ranging from 40% to 80%, based on a baseline watershed phosphorus load. Appendix F also provides recommended non-structural and structural BMPs, with associated phosphorus removal rates.

The phosphorus reduction requirements specified for the MS4s within the TMDL watersheds were all based on an in-lake target of 12 µg/L. This target was derived using a “weight-of-evidence” approach (discussed in Appendix A of each TMDL) to achieve an interim threshold chlorophyll-a concentration of 15 µg/L. This interim chlorophyll-a impairment threshold for swimming is applied as a daily maximum (or 90%ile) value. The use of a daily maximum (or 90%ile) 15 µg/l level as a “swimming impairment threshold” has no objective basis in science, was never adopted into state law and was never approved by EPA as the “applicable” water quality standard. The TMDLs themselves acknowledge that with the level of algal growth, the threshold is more restrictive than necessary to protect swimming uses. Historically, DES utilized a 20 µg/l seasonal average condition as the basis for identifying conditions that could potentially limit swimming uses. EPA, itself, has endorsed this level of control in Florida and has approved similar levels as protective in other states (*e.g.*, Minnesota).

The seasonal average (median) algal levels in many of these lakes are plainly not excessive (it is oligotrophic). Moreover, assessment of median growing season concentrations is the generally accepted method for assessment of nutrient impacts on lake environments, including swimming use impairment. Thus, at worst, the use of the 15 µg/l target should have been applied as a “median” not maximum, consistent with state and federal activities in dozens of other states as well as national guidance on proper regulation of nutrient effects. The modification of this endpoint to a more restrictive averaging period is contrary to applicable federal rules and cannot be attributed to any “weight of evidence” assessment as no “evidence” was presented to demonstrate this level of algal growth is necessary to protect swimming uses. *See* 40 C.F.R. § 122.44(d). Such an assessment, if balanced, would have produced a conclusion that a 15 µg/l median and 30 µg/l maximum reading would be protective of swimming uses. Given the tremendous expected cost to comply with the TMDL and MS4 general permit, it is inappropriate to base these requirements on an “interim” threshold that is 10 years old and has never gone through rulemaking. Rulemaking on the impairment threshold for chlorophyll-a in freshwater lakes should take place before the Draft Permit is finalized to confirm that the dramatic BMP reduction requirements of this permit are actually necessary.

The supporting data upon which the chlorophyll-a threshold is based includes an analysis of the relationship between TP and chlorophyll-a in New Hampshire lakes.

NH DES used a similar statistical approach when developing preliminary TP criteria for freshwaters in New Hampshire (NH DES, 2005). The NH DES evaluation identified statistically significant relationships between chl a and TP for lakes. Statistical relationships were based on: 1) the median of TP samples taken at one-third the water depth in unstratified lakes and at the mid-epilimnion depth in stratified lakes; and 2) the median of composite chl a samples of the water column to the mid-metalimnion depth in stratified lakes and to the two-thirds water depth in unstratified lakes during the summer months (June through September). A total of 168 lakes were included in the analysis of which 23 were impaired for chl a (i.e., lakes with chl a greater than or equal to 15 µg/L). Of the 23 impaired lakes, approximately 14 were stratified (60%) and 9 were unstratified (40%).

Figure A-2 shows the cumulative frequency plots for the impaired and non-impaired lakes. Based on Figure A- 2, an initial TP target of 11.5 µg/L was selected. As shown, 20% of the impaired lakes and 80% of the non-impaired lakes have TP concentrations < 11.5 µg/L which means that 20% of the non-impaired lakes have TP concentrations > 11.5 µg/L) [sic]. After rounding, a target of 12 µg/L strikes a reasonable balance between the percent of lakes that are impaired at concentrations below this level and the percent of lakes that are not impaired at concentrations above this concentration.

Baboosic Lake TP TMDL, Appendix A at A-4 (emphasis added).

As discussed above, the analysis supporting the 12 µg/L TP target is a *median* and the 15 µg/L chlorophyll-a target is also a *median*. The use of the median summer chlorophyll-a concentration in this analysis is inconsistent with application of the 15 µg/L threshold as a daily maximum in the TMDL. Given the nature of the TP endpoint derivation, the target chlorophyll-a concentration should be the summer median concentration and lakes, such as Baboosic Lake, would not be considered impaired. Moreover, the background document cited as the basis for choosing the 15 µg/l objective indicates that it is *not* an impairment threshold for swimming and exceedance of this objective should be allowed for 20% of the readings. *See* Baboosic Lake TP TMDL, Appendix A at A-4 *citing* DES Interim Chlorophyll Criteria for Lakes, at 1-2 (June 6, 2003). The target use for protection was swimming.

Finally, the TP endpoint used in all of the TMDLs was based on an evaluation of 168 lakes, without consideration of any of the factors that influence the response of lakes to nutrients as recommended by EPA in its Guidance on the development of numeric nutrient criteria for lakes (e.g., depth, stratification, detention time, water transparency). This approach violates EPA's own guidance and cannot be considered scientifically defensible. Rather, multiple lake types

should have been identified and the database classified before target endpoints were developed (similar to the approach used in Minnesota⁴⁴ and Florida⁴⁵ and approved by EPA).

15. The Phosphorus TMDLs Impairment Listings Are Suspect

Wasteload allocations for the individual TMDLs were assessed using modeled lake water quality response to different loading scenarios. *See, e.g.*, Baboosic Lake TP TMDL Table 6-2, at 6-3. The modeled response to the current load for each TMDL is summarized below.

TMDL	TP Load (kg/yr)	Mean TP (µg/L)	Mean Chl-a (µg/L)	Probability of Summer Bloom > 15 µg/L
Baboosic Lake	175.8	18.4	6.7	3.1%
Horseshoe Pond	56.0	38.1	17	50.2
Nutt Pond	104.7	33.6	14.5	37.6
Pine Island	2533	33	14	37
Robinson Pond	115.2	20.1	7.5	5.1
Sebbins Pond	24.8	23.1	9	10.1
Showell Pond	30.3	37	16.3	46.6
Stevens Pond	65	23	9.0	10.1
Hoods Pond	505.0	49.0	23.5	74.2
Halfmoon Pond	25.1	35.4	15.5	42.8
Greenwood Pond	52.4	29	11.8	23.2
Flints Pond	80.4	19.8	7.4	4.7
Doors Pond	174.7	30.4	12.8	28
Country Pond	611.8	22	8.4	8.1
Governors Lake	61.6	23	8.8	9.2
Back Lake	134.5	13.7	4.5	0.4
Forest Lake	179.9	12.3	3.9	0.2
French Pond	62.7	32.4	13.8	34.0

⁴⁴ See Minn. R. 7050.0222 Specific Water Quality Standards for Class 2 Waters of the State; Aquatic Life and Recreation- Eutrophication Standards for Class 2B, *available at* <https://www.revisor.mn.gov/rules/?id=7050.0222>.

⁴⁵ See 75 Fed. Reg. 75,762, 75,778 (Dec. 6, 2010) Table C-17- EPA's Numeric Criteria for Florida Lakes.

First, as is apparent from this chart, the median chlorophyll ‘a’ levels were acceptable (less than 15 µg/l median) for the vast majority of the waters claimed to be “impaired.” These lakes should have, at most, a load freeze to protect existing water quality, though most should have been delisted. Moreover, the 2012 New Hampshire Consolidated Assessment and Listing Methodology (CALM) indicates that the Primary Contact Recreation use is fully supported when the total number of water quality exceedances is less than 10% of the observations. *See* 2012 CALM, at 38. The modeling results, shown above, indicate a summertime bloom probability of less than 10% for many of the TMDL watersheds including Baboosic Lake, Robinson Pond, Flints Pond, Country Pond, Governors Lake, Back Lake, and Forest Lake. These watersheds should not be considered impaired, even under the unduly restrictive chlorophyll a target value. Stebbins Pond and Stevens Pond marginally exceed the 10% threshold but have TP reduction requirements of 64% and 50%, respectively. These reduction requirements make no sense given the marginal exceedance predicted by the model. If the chlorophyll-a impairment threshold is a median, rather than a daily maximum, most of the lakes in the table already meet the target and further MS4 controls would not be required.

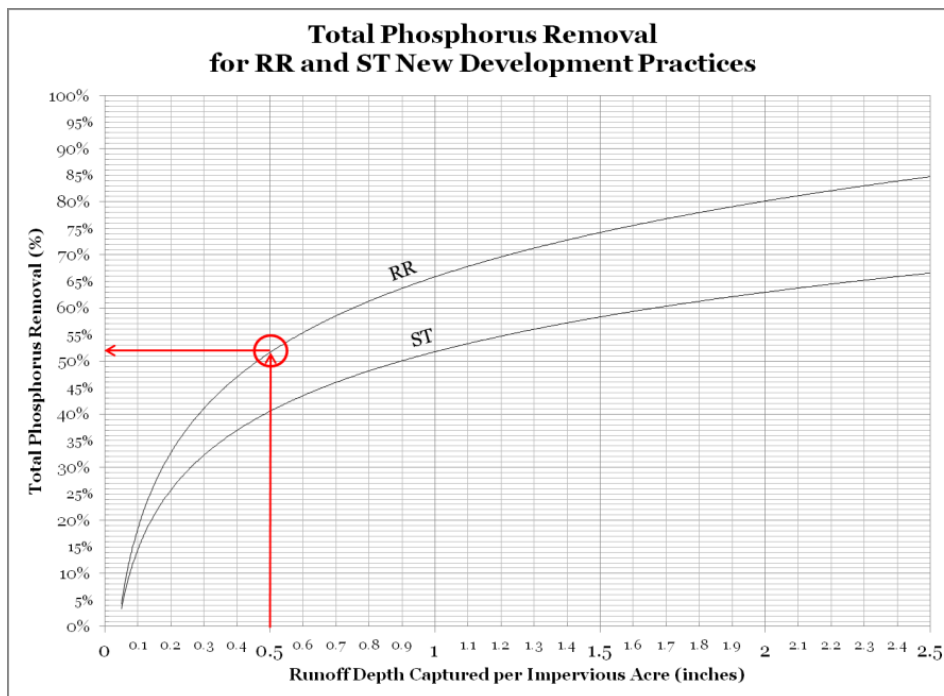
16. The Phosphorus TMDLs Set Unattainable Target Load Reductions.

The various non-structural BMPs have phosphorus reduction rates that typically range from 1% to 10%. Since the TMDLs call for phosphorus removals from the MS4 discharges of at least 40%, every MS4 community subject to a phosphorus TMDL must install structural BMPs to comply with the Draft Permit. The only structural BMPs capable of achieving the reductions called for in the TMDLs are infiltration trenches and basins. Consequently, compliance with the permit would require the installation of these basins throughout the municipality. Given the major cost that must be incurred to meet the TMDL BMP load reduction objectives, it is appropriate to reconsider the technical validity of these requirements.

The Infiltration Basin performance curves presented in Appendix F, Attachment 3 indicates that removal rates up to nearly 100% can be achieved using an Infiltration Basin. In addition, removals in excess of 50% are achieved with less than 0.2 inches of runoff treated. This performance seems completely unrealistic and field data were not provided to verify these performance estimates. The Final TMDL Report for Baboosic Lake indicates that the maximum estimated achievable reduction is approximately 60 – 70%. *See* Baboosic Lake TMDL, at 6-1. Based on this estimate, 9 of the TMDLs listed in Table F-3 cannot achieve their target load reductions because removals in excess of 60% are required. Since Section 402(p) only allows restrictions “to the maximum extent practicable” and attainment of such reductions is not “practicable”, the proposed permit requirements exceed statutory authority.

An alternative curve (presented below) for estimating phosphorus reduction, from the Chesapeake Bay Program, indicates that significantly higher rainfall capture levels are required

to obtain approximately 50% reduction in phosphorus load.⁴⁶ Consequently, the facilities subject to these requirements would need to install large infiltration basins throughout the watershed. Using the examples presented in Appendix F, Attachment 3 the affected municipalities would need to devote approximately 3% of the overall surface area in MS4 service areas to these basins. This land requirement is extreme and expensive – and again, not demonstrated by EPA to be “practicable”. Communities faced with such requirements would likely be subject to substantial and basin-wide economic impacts as recognized under 40 C.F.R. § 131.10(g)(6). Given this certainty, the PCP Component Development Schedule presented in Appendix F (at 7) should be relaxed to allow up to 20 years for overall compliance, assuming the target reduction is practicable.



17. For Waters Impaired for Aluminum, The Agency Must Consider Other Factors That May Cause Elevated Levels of Aluminum Before Imposing Other Requirements on MS4s

The Draft Permit specifically addresses Aluminum impaired lakes with TMDLs. *See* Draft Permit Section 2.2.1.c. Wasteload allocations are not specified for MS4s in the TMDLs since atmospheric deposition was determined to be the cause of impairment. However, this Permit section provides the following caveat:

⁴⁶ Attachment I- *Recommendations of the Expert Panel to Define Removal Rates for New State Stormwater Performance Standards*, at 9, Figure 1- New BMP Removal Rate Adjustor Curve for Phosphorus (Apr. 30, 2012), available at http://www.chesapeakebay.net/documents/Final_CBP_Approved_Expert_Panel_Report_on_Stormwater_Performance_Standards_SHORT.pdf.

However, if the permittee becomes aware, or EPA or NHDES determines, that an MS4 discharge is causing or contributing to such impairment to an extent that cannot be explained by atmospheric deposition (e.g. chemical spill, acid landfill leachate or other sources), the permittee shall comply with the requirements of Part 2.1.1.c.

Draft Permit, at 15. The two specific examples given (chemical spill and acid landfill leachate) represent illicit discharges that are not under the control of the MS4 and it is inappropriate to make the MS4 operator pay for the illegal actions of others. In the event that other sources are responsible, EPA or DES must determine that these sources are not natural and that the discharge is significant before imposing the requirements of Part 2.1.1.c on the MS4. Moreover, in assessing whether the MS4 is causing or contributing to an exceedance of the aluminum criteria, the DES criteria for aluminum should be corrected to account for site-specific conditions of the receiving water.

The DES criteria for aluminum (Env-Wq 1703.1) are the National Recommended Water Quality Criteria developed by EPA in 1986. Those criteria specifically caution that they may be overprotective for the following reasons:

1. The value of 87 µg/L is based on a toxicity test with the striped bass in water with a pH of 6.5 – 6.6 and a hardness < 10 mg/L. Data from a WER submitted to EPA in 1994 indicate that aluminum is substantially less toxic at higher pH and hardness.
2. In tests with brook trout, total recoverable aluminum appears to be more appropriate as an indicator of toxicity than the dissolved form. However, this analysis was based on exposure to aluminum hydroxide particles. In surface waters, total recoverable aluminum may be primarily associated with clay particles, which may be less toxic.
3. EPA is aware of many high quality waters in the U.S. that contain more than 87 µg/L of either total recoverable or dissolved aluminum.⁴⁷

Water quality data for New Hampshire indicate that naturally elevated levels of aluminum are common. These elevated aluminum levels are likely due to the weathering of granitic rock, which yields aluminum in particles, and not the form of aluminum considered in development of the current DES criteria. Given these considerations, identified by EPA in the *National Recommended Water Quality Criteria: 2002*, it is inappropriate to assess waters impaired by aluminum without considering whether the conditions of the receiving water are consistent with the manner in which the criteria were derived.

⁴⁷ See USEPA National Recommended Water Quality Criteria: 2002, EPA-822-R-02-047, at 26 n. L.



PUBLIC WORKS DEPARTMENT

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August 15, 2013

Mr. Newton Tedder
Office of Ecosystem Protection
U.S. Environmental Protection Agency – Region 1
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: City of Portsmouth, New Hampshire 2013 NH Small MS4 Draft General Permit
Comments
General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer
Systems

Dear Mr. Tedder:

Please see attached to this letter comments from the City of Portsmouth, New Hampshire regarding the General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems.

The City of Portsmouth and numerous other New Hampshire communities have engaged the law firm of Sheehan, Phinney, Bass and Green to prepare comments to the draft 2013 NH MS4 Permit on our behalf. The comments prepared by Sheehan, Phinney, Bass and Green are incorporated into the City of Portsmouth's comments by reference.

The City's comments are broken up into two categories including General Comments and Section Specific Comments. Attached to the comments is Appendix A which includes referenced attachments.

Please call me at 603-766-1420 if you have any questions or require additional information.

Very truly yours,

Brian Goetz.
Deputy Director of Public Works

Encl.

cc: David S. Allen, P.E., Assistant City Manager w/o encl.
Peter Rice, P.E., Director of Public Works w/o encl.
Terry Desmarais, P.E., City Engineer w/o encl.
Suzanne Woodland, Assistant City Attorney w/o encl.

**Comments to the US Environmental Protection Agency
from the City of Portsmouth, New Hampshire
August 15, 2013**

Thank you for the opportunity to provide comment with regard to the proposed changes to the 2013 Draft General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in New Hampshire. The City of Portsmouth and numerous other New Hampshire communities have engaged the law firm of Sheehan, Phinney, Bass and Green to prepare comments to the draft 2013 NH MS4 Permit on our behalf. The comments prepared by Sheehan, Phinney, Bass and Green are incorporated into the City of Portsmouth's comments by reference.

The City of Portsmouth, New Hampshire with a population of approximately 21,000, consists of approximately 17 square miles and is located on the Piscataqua River basin. Portsmouth's City storm drain infrastructure consists of approximately 323,000 lineal feet of pipe, 4,700 catch basins or manhole structures and 450 outfalls. This proposed General Permit would be applicable to the City's Separated Storm Sewer System, and as such, the City is providing the comments herein.

The City of Portsmouth agrees with the intent and goal of the Clean Water Act (CWA), however; we would like to reiterate our comment to the 2009 Draft MS4 General Permit that the proposed regulations are excessively burdensome and some components will not help achieve clean water or be attainable within the five year permit period. Several general comments applicable to the overall permit conditions are provided at the beginning of this document, and subsequent comments more specific to the requirements are provided in the same sequential order as listed in the Permit.

General Comments:

1. The Permit, as drafted, would create a significant administrative and financial burden for the City that would detract from its ability to provide direct benefits to water quality through such activities as increased street sweeping, increased catch basin cleaning, removal of illicit

discharges, and/or conducting inspections of construction sites. The City's consultant has estimated that approximately 2,800 total staff hours, or approximately 560 staff hours per year, would be required to comply with the administrative components of the draft Permit such as tracking and annual reporting. The total estimated cost to comply with this Permit, an additional \$3,500,000 over the five year permit cycle, would constitute a 8-12% increase in the City's current Public Works budget. Therefore, without an additional funding source other essential City programs would need to be reduced or cut to accommodate these expenditures. See Appendix A for spreadsheet relative to these expenditures.

2. Many of the deadlines provided in the draft Permit do not allow sufficient time to allocate funding to complete the tasks required. The City's fiscal year runs from July 1 to June 30th every year. The City's budget process requires months of planning, hearings, and work sessions before final approval by the City Council. The budget process for the City's next fiscal year generally begins in October with a final vote expected in late May or June. The City requests that no item in the permit be required to be completed during the first Permit Year except the preparation of the Stormwater Management Plan (SWMP) to allow the City enough time to present additional fund requests and justification to City Council.

3. The draft Permit would require compliance with Total Maximum Daily Load (TMDL) immediately, or no later than the date set forth in the TMDL. This approach is not consistent with the CWA provisions relating to the MS4 general permit and would likely result in immediate non-compliance upon issuance of the permit.

4. The draft permit holds the MS4 permittee liable for illegal acts/discharges from a third party, such as individuals, industries, neighboring municipalities, and State or Federal Agencies. It is requested that permit be modified or clarified not to hold the permittee liable for the third party stormwater contributions.

5. New and additional stormwater flow to impaired waters regardless of concentration would be prohibited under this draft permit. This requirement presumes that the added discharge causes or

increases the impairment without any sampling or confirmation of the possible impairment. There may be instances where additional stormwater flow might be better than the receiving water body especially if it is from in-place BMPs.

6. The City has already implemented numerous stormwater BMP projects in recent years. These have included the retrofit or installation of improved stormwater handling and treatment structures such as tree box filters and rain gardens. The City has also worked with community organizations and residents to assist with these installations on private property. These are in addition to other parcels in the City which have been developed with their own stormwater BMP installations. A credit should be available to municipalities such as Portsmouth that have been proactive in this area.

7. The draft permit has extensive tracking and reporting for nearly every required action many of which are redundant as they will be included as part of annual reporting. Please review these requirements and make an effort to consolidate the reporting within the annual report.

Section-Specific Comments:

Section 2.1.2.b.iii New or Increased Discharges to Impaired Waters: This provision states that there is no net increase in loading allowed from an MS4 to impaired waters of any pollutant for which the water body is impaired. A large portion of the City of Portsmouth discharges storm water to the tidal waters such as the Piscataqua River, Sagamore Creek, Back Channel, North Mill Pond, South Mill Pond, and Great Bay Estuary and non-tidal waters including Pickering Brook, Hodgson Brook, Newfields Ditch, and Berry's Brook which are all water bodies presently identified as impaired. This provision in the new draft permit could cripple future development, bringing a halt to growth and redevelopment within the City. Unreasonable and unrealistic restrictions that stifle growth only harm a municipality's ability to make future investments in environmental improvements. The City of Portsmouth has protective and thorough site review regulations relative to stormwater management (See Appendix A) and a well established technical process for review of new developments, but as a practical matter,

even the installation of the latest technology and the use of best management practices to limit loadings, are not 100% efficient. Increased loadings to impaired water bodies are likely in any growth/redevelopment scenario.

Section 2.2.1 and Appendix F Discharge to an Impaired Water with an Approved TMDL: The City of Portsmouth has a combined collection system and is regulated under a separate NPDES permit for discharges of combined sewer overflow during wet weather events. The combined sewer overflows (CSOs) discharge to South Mill Pond and Lower Piscataqua River – South and are being addressed as part of a Consent Decree to reduce combined sewer overflows from these outfalls. The primary source of bacteria in these water bodies is likely due to point source combined sewer overflows and reporting obligations should be handled under the NPDES permit. This requirement for additional reporting is redundant. The City of Portsmouth recommends it be removed or modified for communities with combined sewer systems.

Section 2.2 Discharge to Impaired Waters: Many of the current impairment listings for water bodies to which Portsmouth discharges are based on sample data that is limited or that is aged and may not represent current conditions. Some of the data, for example, was collected in 2006, a period of record-setting precipitation events for the seacoast area. Consequently, data may be atypical due to the extreme amount of rainfall and increase in erosion and runoff into the storm drain system. Sampling in years prior or post 2006 may more accurately reflect conditions. Below are a few examples of inconsistencies or inadequacies in the sample data:

- Borthwick Ave. Brook/Tributary – No sample data for pH since 2008.
- Upper Hodgson Brook – No sample data for Manganese.
- North Mill Pond – Repairs to failing sewer line have been completed (2009) and several IDDE have been removed.

For the impairment listings where there is a lack of sufficient or current data, and where remedial activity may have improved water quality, Portsmouth suggests that NHDES actively review the

listing and work with the community to obtain the most up to date and accurate data for reevaluation.

Section 2.2.2 Discharge to an Impaired Water without an Approved TMDL: The City of Portsmouth believes it is the responsibility of the State of New Hampshire and the USEPA to identify sources of impairments. The requirements of this section to evaluate and identify sources of impairments are not the responsibility of the City. This exemplifies the burden that the proposed permit places on the MS4's, which requires them to address water quality issues where the MS4's are clearly not the source of the impairment. EPA and NHDES should determine the primary sources of the impairments, and not assume that the MS4's are the source and require the MS4 to prove they are not the source of the impairment. This language should be removed from the permit.

Section 2.2.3 and Appendices F and H Great Bay Watershed Nitrogen Requirements: The City of Portsmouth and other communities have challenged the scientific basis for NHDES' development of the June 2009 Numeric Nutrient Criteria for the Great Bay Estuary. The June 2009 Numeric Nutrient Criteria for the Great Bay Estuary established 0.3 mg/L Total Nitrogen (TN) as the in-stream water quality threshold on the premise that elevated nitrogen concentrations have caused excessive phytoplankton growth in the water column that reduces light transparency and adversely impacted eelgrass growth in the Great Bay Estuary.

Portsmouth and other communities have provided NHDES and EPA with numerous documents and affidavits that show NHDES knew that chlorophyll a levels, the measure of suspended algae particles in the water column, has not increased in 30 years and that reducing nitrogen would not improve transparency sufficiently to meet target transparency levels for eelgrass. See for example Trowbridge Deposition excerpts in Appendix A.

Two prominent UNH research professors, Dr. Jones and Dr. Langan, who have worked in the Great Bay estuary for more than 20 years, indicated in a response letter to the Mayors of Portsmouth, Dover, and Rochester, that no research has been conducted in the Great Bay estuary

that shows nitrogen is the cause of eelgrass loss anywhere in the estuary. Letter from Mayors and Letter from Jones and Langan in Appendix A.

Dr. Steven Chapra of Tufts University a highly regarded expert prepared a review of the 2009 Nutrient Criteria document and concluded that the 2009 NHDES Nutrient Criteria document was fundamentally flawed and produced incorrect results. The Chapra Affidavit is included in Appendix A.

The additional requirements specified in Appendix H for municipalities within the Great Bay Estuary watershed for nitrogen impairment should be withdrawn until the completion of the independent scientific peer review of the 2009 Numeric Nutrient Criteria document scheduled to be performed in the fall of 2013 per an agreement between the cities of Dover, Portsmouth and Rochester, New Hampshire and the New Hampshire Department of Environmental Services. The peer review will be conducted by a panel of independent experts and will consider the methodology, analysis, and conclusions in the 2009 document as well as all the available data and pertinent research not included in the NHDES analysis. See attached Agreement in Appendix A. It should also be noted that the communities have submitted comment to NHDES on the 2012 303(d) listing objecting to the proposed nitrogen impairment listings.

It would be prudent for EPA to withdraw nitrogen requirements from Appendix H of the draft MS4 permit until such time that an appropriate nitrogen water quality threshold is determined. It should also be noted that the communities have submitted comment to NHDES on the 2012 303(d) listing objecting to the proposed nitrogen impairment listings.

The Draft December 2010 Analysis of Nitrogen Loading Reduction for Wastewater Treatment Facilities and Non-Point sources in the Great Bay Estuary Watershed was developed following the 2009 Numeric Nutrient Criteria and was based on the finding of the 2009 Numeric Nutrient Criteria document. This document should be updated once the peer review is completed and should also be withdrawn from the MS4 permit.

Portsmouth's stormwater ultimately discharges to the Piscataqua River. The river is known to have extremely high velocity currents and significant dilution. The 2009 Numeric Nutrient Criteria established the in-stream threshold for the entire estuary including Portsmouth Harbor. The numeric criteria was established to support eelgrass habitat. The areas of the Piscataqua to which Portsmouth discharges including Portsmouth Harbor are not areas that would typically support eelgrass habitat due to stream velocities and water depth.

Section 2.2.4 and Appendix H Discharges to Chloride-Impaired Waters: If the State does not implement a statewide training, certification, and salt usage reporting program for commercial salt applicators, each MS4 in New Hampshire will need to implement this requirement independently. The requirements of the permittees in this section are excessively burdensome and an unreasonable and unlawful delegation of responsibility. As we commented in 2009, it is not reasonable or lawful for the USEPA to use this General Permit to mandate that the City acquire information about the source of the chloride impairment.

Within the City of Portsmouth, there are 130 privately owned parcels of land within the eight watersheds of the surface waters that are identified as chloride impaired. In addition, a number of the major roadways within the watersheds, including Interstate 95, Routes 1 and 1B, and the Spaulding Turnpike are maintained by the State of New Hampshire. Requiring the City to obtain information about the quantity of chloride-based deicing chemicals applied during each storm event at each of the 130 parcels that contain private or public parking lots or roads is anticipated to cost the City \$5,600 annually. Winter operations are a significant public works budget expense and staff are keenly aware of salt use from a cost perspective. Portsmouth has implemented automated equipment to uniformly lay down salt which adjusts to vehicle speed, and the staff has been certified by New Hampshire Green SnowPro program in order to implement salt reduction in the following areas: Equipment Calibration, Anti-Icing, Brine Making, Pre-wetting with Brine and Other Liquids, Efficient Application Rate Changes with Pavement Temperature, Effective Plowing, Emerging Technologies, Salt Accounting, and Environmental Impacts.

The remainder of the Chloride Impaired Water program described in this draft Permit includes requirements for those non-municipal entities to conform to specific application rates, to calibrate application equipment, to cover their piles, and a requirement to educate those entities on best management practices for deicing materials. This is a significant enforcement burden. The City of Portsmouth believes the TMDL documents, not this General Permit, should specify the corrective actions necessary and this section should be removed.

Section 2.3.2 Public Education and Outreach: While the City appreciates that the EPA provided more time to conduct the public education program in this draft of the permit, the City is reiterating its comment from the 2009 permit: Current studies show that the majority of the public does not understand how stormwater can become polluted and how it can contribute to water quality issues. Most of the public still believes that catchbasins in their roads transport stormwater to a treatment facility prior to discharge. In addition, most people do not understand the concept of a watershed, or the concepts related to the water cycle (rainfall, runoff, infiltration, and evapotranspiration). A significant amount of awareness-raising must be done across the United States prior to an individual community education/outreach campaign in order to truly stimulate behavior changes in the general public. The City of Portsmouth, like many other municipalities, sees a large influx of visitors during the tourist season and thus education must extend well beyond the immediate locality to be truly effective.

The City supports the requirements to provide public education materials related to the four sectors identified in the General Permit, however it is beyond any individual municipality's means to conduct a truly meaningful effective campaign. A national education program, such as that promoted by Keep America Beautiful in the 1970's, could provide a consistent and transferable message that regulated MS4s could use in developing further promotional materials. At a minimum, the USEPA should provide a template or umbrella program for education of stormwater issues that each municipality could modify to be specific to the municipality's waters. Engaging a public relations firm to identify messages that can be effective is a lengthy and expensive process that should not be imposed upon smaller communities or single cities. It will likely take any party at least 6 months to identify a target audience and message, and

develop an evaluation protocol. The USEPA is in a better position to create and evaluate the effectiveness of any public education messages. The City of Portsmouth has participated with the Seacoast Coalition on storm water educational initiatives in the past and is particularly sensitive to the need for a properly funded, broad sweeping public education program in lieu of inadequately-funded local initiatives.

2.3.4 Illicit Discharge Detection and Elimination Program: The proposed schedule for completion of an IDDE work under the new permit is unreasonable. Portsmouth has been upgrading its stormwater system over the last 20 years and has removed numerous illicit connections. As a result, most of Portsmouth's illicit connections have been identified and removed and we continue to upgrade the stormwater system and investigate possible areas of concern. Requiring the City to sample every outfall under this permit is redundant and does not acknowledge the effort and work already completed. Requiring sampling of every discharge location regardless of past work is not productive, cost-effective, or helpful in attaining water quality improvements.

2.3.4.4 a through e: The City is reiterating its objection to regulation of Sanitary Sewer Overflows (SSOs) in this Permit. Most municipalities or quasi-municipal sewer districts, including the City of Portsmouth, are required to report to the USEPA on SSOs and removal and address SSOs as part of their NPDES permits for their wastewater treatment plants. This requirement for additional reporting is redundant. The City of Portsmouth recommends it be removed from the General Permit Requirements.

2.3.4.6 System mapping: The required mapping elements include indication of all use impairments as identified in the state's most current 303(d) list. This information is complex and all of it cannot be displayed on a map in a manner that is legible without significant effort. The City respectfully requests clarification on the intent of this requirement so it may properly display the information.

2.3.6.8 Directly Connected Impervious Area: The requirement to complete an inventory and prioritization of MS4-owned property and infrastructure that may have the potential to be retrofitted is a burdensome and unreasonable requirement. The City of Portsmouth owns 184 parcels of land totaling 1,140 acres. The City estimates a cost of at least \$54,000 to complete this task. Those funds could be better spent on already identified storm water treatment infrastructure needs and operational activities. Retrofits should be applied as corrective measures for areas that are already impaired from polluted stormwater runoff, or as opportunistic when a property is already planned for redevelopment. This requirement should be removed from the General Permit.

Appendix E Notice of Intent: The suggested form provided by the USEPA in Appendix E requires that information related to the 2003 SWMP be provided. The City of Portsmouth has submitted annual reports that already provided this requested information. In addition, the NOI requires that dates and responsible parties and description of BMPs associated with the SWMP be submitted with the NOI. The NOI is due within 90 days of the effective date of the permit. However the SWMP is not due to be completed until the end of the first permit year. This NOI form effectively shortens the SWMP deadline to 90 days. Please remove the requirements to provide 2003 information and new SWMP information as part of the NOI.

Thank you for the opportunity to provide comments to this proposed permit for stormwater discharges from small municipal separate storm sewer systems.

Appendix A

Description	Author	Date
<i>Estimated Costs to Comply with Draft MS4 Permit</i>	<i>City of Portsmouth</i>	<i>February 2013</i>
<i>Site Plan Review Regulations</i>	<i>City of Portsmouth</i>	<i>February 16, 2012</i>
<i>Elevated TN Did Not Cause Increased Algal Growth Impacting Transparency – Trowbridge Deposition</i>		<i>June 23, 2012 and July 11, 2012</i>
<i>Causes of Periodic Low DO Unknown – Trowbridge Deposition</i>		<i>June 23, 2012</i>
<i>Exclusion of Prior Studies from Record – Trowbridge Deposition</i>		<i>July 11, 2012</i>
<i>TN Control Ineffective in Tidal Rivers – Trowbridge Deposition</i>		<i>July 11, 2012</i>
<i>Letter from Mayors of Dover, Portsmouth and Rochester to Pennock, Jonathan, Ph.D., Langan, Richard, Ph.D., Jones, Stephen H., Ph.D. re: Request for Input on Results of Prior Research Conducted to Evaluate Nutrient Impacts on Great Bay Estuary</i>	<i>Spear, Eric, Trefethen, Dean, Jean, T. J.,</i>	<i>January 1, 2013</i>
<i>Letter from UNH to Spear, Eric, Trefethen, Dean, Jean, T. J. re: Request for Input on Results of Prior Research Conducted to Evaluate Nutrient Impacts on Great Bay Estuary</i>	<i>Langan, Richard, Ph.D., Jones, Stephen H., Dr.</i>	<i>February 19, 2013</i>
<i>Declaration of Steven C. Chapra, Ph.D., F.ASCE – Assessment of Whether the Department of Environmental Service's Approach to Nutrient Criteria Derivation for the Great Bay Estuary Used Reliable, Scientifically Defensible Methods to Derive Nutrient Criteria, Environmental Appeals Board, US EPA</i>	<i>Chapra, Steven C., Ph.D., F.ASCE</i>	<i>February 27, 2013</i>
<i>Peer Review Agreement between Dover, Portsmouth, Rochester, NH (the "cities") and the Department of Environmental Services (DES)</i>	<i>Kinder, Tupper E., Peltonen, John. E, Burnett Young, Sherilyn, Burack, Thomas</i>	<i>April 29, 2013</i>

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August 14, 2013

Mr. Newton Tedder
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**Re: Comments By Atkinson, Kingston, Newton, and Plaistow, NH Regarding the
Environmental Protection Agency Region 1's Draft Small Municipal
Separate Storm Sewer System NPDES General Permit – New Hampshire**

Dear Mr. Tedder:

On behalf of the New Hampshire towns and municipal separate storm sewer system (“MS4”) operators of Atkinson, Kingston, Newton, and Plaistow, NH (“Represented Towns”),¹ I submit the following comments regarding the Environmental Protection Agency Region 1’s Draft Small Municipal Separate Storm Sewer System NPDES General Permit – New Hampshire (“Draft MS4 Permit”)(78 Fed. Reg. 9,908; February 12, 2013).² Each of the four Represented Towns has standing to file these comments as individual operators of MS4 systems potentially subject to the Draft MS4 Permit.

As set forth in the comments below, the Draft MS4 Permit must undergo significant modification to address provisions that are inconsistent with Region 1’s Clean Water Act authority, are arbitrary and capricious, or simply cannot be justified from a cost-benefit perspective under EPA’s current stormwater permit program. In addition to raising the legal, technical, and economic shortcomings contained in the Draft MS4 Permit, these comments also provide input and possible solutions to those issues in its attempt to assist Region 1 in developing an appropriate MS4 permit without continued delay or protracted litigation.

¹ In addition to being represented in this matter by Barnes & Thornburg LLP, each of the four Represented Towns also has retained Sumner Kalman, Attorney at Law, PC, to help serve as the Town’s general counsel and who also participated in developing these comments. These comments are being submitted as a single set of comments to help reduce the administrative burden on EPA Region 1 staff, but EPA should consider each Represented Town as a unique public participant in this administrative process with all of the legal rights and standing as if these same comments were filed individually by each Represented Town.

² The original comment period was extended through August 15, 2013. *See* 78 Fed. Reg. 27,964 (May 13, 2013).

Background Regarding Atkinson, Kingston, Newton, and Plaistow, New Hampshire

Atkinson, NH: Atkinson is a quiet bedroom community located in southeastern New Hampshire with a population of just over 6,700. Its winding roads are both historic and beautiful. Conveniently located between Boston and Concord, its residents enjoy country living with easy access to shopping, urban areas, the lakes region and the mountains.

The EPA Region 1 stormwater general permit for small municipal MS-4's raises real concerns. Other than the police department and library, Atkinson has only three (3) full time employees, all with administrative focus. The town would have to hire contractors at significant cost to meet the requirements of the permit, placing a significant burden on the Town and its residents. EPA's Draft MS4 Permit represents an increase in administrative, financial and technical effort that would be impossible for our municipality to absorb.

Kingston, NH: Kingston is a southern New Hampshire town of approximately 6,100 residents and 20.9 square miles, including 1.2 square miles of inland water area. The bodies of water include several Great Ponds (ponds having areas greater than 10 acres) including one that is encompassed by a State Park (Kingston State Park). The town is fortunate to have a substantial aquifer resource comprising approximately two-thirds of its land area, and local ordinances have been in effect for more than two decades to protect that resource with minimum lot sizes, restrictions on use, special septic design regulations, etc. Approximately 95 percent of the town's funding is realized through property taxes.

A long-time conservation effort has set as a goal – included in the town's Master Plan – the preservation/protection of 25 percent of the town's area. To that end, conservation easements or protective covenants have been recorded against more than 2,500 acres and funds have been set aside to purchase more. That portion of the town that is included in the Great Bay Watershed is nearly all under protection. The Town actively participates in the Southern N. H. Watershed Alliance that, in cooperation with the N. H. Department of Environmental Services, works to develop protections for the Watershed through regulation and education. The Town strives to regulate adverse impact on groundwater and coastal watershed areas. In addition to the Aquifer Protection Ordinance, the town also carefully enforces a Stormwater Management Ordinance and Sedimentation and Erosion Control regulations.

Newton, NH: The Town of Newton is a small rural, bedroom community with a population of approximately 4,600. There is little commercial or industrial property to help defray the tax burden on resident property owners. There is one elementary and one middle school (the high school is in Kingston, NH). Newton has a Town Beach on Country Pond that is open only to Newton Residents, except for scheduled swim lessons that may include non-residents. We also have two campgrounds that are located on the pond with their own beach access.

Our Conservation Commission has actively worked with the public and the schools to educate them by providing workshops on how to protect wetlands, manure management and how to protect groundwater around their homes and along local roads. Like most small towns in New

Hampshire, our resources and maintaining consistent funding for even basic services is a challenge. In fact, we have failed to meet our budget needs in four of the last six years. Such a situation raises the stakes for every mandate contained in EPA's Draft MS4 Permit.

Plaistow, NH: The Town of Plaistow (population 8,000) has a strong legacy of environmental stewardship. Since our inception as a Town in 1749, the Town of Plaistow has supported the best of hometown values, unwavering patriotism, and dedicated citizenship. Over the years, Plaistow has seen the changes that have transformed our community from an agrarian economy to a regional center of transportation, education, and commerce. This evolution also has caused additional environmental challenges ranging from a Superfund site, remediating leaking underground petroleum storage tanks, and protecting vital local resources. But we have met those challenges head-on. In fact, in 2002, Plaistow was one of the first Towns in New Hampshire to implement a *Source Water Protection Plan*.

The nation's economic challenges have also had significant impact on Plaistow, which now has one of the highest unemployment rates in New Hampshire. We are not in a position to further burden our residents with unnecessary increased fees or taxes. During these challenging times, Plaistow received what it believes was an unjust and unfair EPA Administrative Order in 2009, which helps to symbolize the unfair challenges small towns have in trying to work responsibly with federal and state partners to ensure appropriate environmental protection. Plaistow would much rather receive help and assistance from EPA to strengthen our partnership through shared effort and responsibility, rather than a heavy-handed top-down approach that also seems to be prevalent in the Draft MS4 Permit.

* * * * *

In sum, each of the Represented Towns fully supports environmental protection and providing a healthy and safe environment for its residents. They also recognize and support federal, state, and local efforts and initiatives to protect valuable water resources and ensure that they provide safe conditions for recreation, aquatic species, and other valuable needs, now and into the future. They recognize that the federal, state, and local partnerships are vital to providing a balanced environmental protection program for all of New Hampshire, New England, and the nation; however, they also firmly support the appropriate checks and balances built into these relationships that must be recognized and protected.

EPA Region 1's authority to develop and implement any MS4 permit is limited to the authorities granted to the federal government in the U.S. Constitution, and to EPA through specific delegation of certain powers that Congress sets forth in the Clean Water Act (and related statutes). While the goals of the Draft MS4 Permit are entirely laudable, many of its requirements and mandates encroach unnecessarily upon many state and local issues, in contravention of EPA's CWA authority. As described above, these towns have taken their own actions to protect local resources apart from any federal mandates. Hence, while the Represented Towns support environmental protection, they cannot support many of the provisions contained

in the Draft MS4 Permit that exceed EPA Region 1's authority to promulgate or that infringe on local land use control.

Summary of Key Aspects of Clean Water Act Stormwater Permitting

In 1987, Congress added section 402(p) to the Clean Water Act to resolve years of litigation and confusion regarding EPA's authority to require National Pollutant Discharge Elimination System ("NPDES") permits for discharges composed entirely of stormwater. 33 U.S.C. § 1342(p). Section 402(p)(1) essentially exempts most stormwater discharges from NPDES permitting requirements. Section 402(p)(2) lists several exceptions to that broad exemption, including stormwater discharges from industrial activity, discharges from large and medium MS4s (serving populations of 100,000 persons or greater), and other specific sources that permitting authorities may designate for permitting because they are significant contributors of pollutants to U.S. waters. The industrial and MS4 sources were considered "Phase I" sources.

Congress also provided a process for EPA to expand the NPDES stormwater program to other classes and categories of dischargers on a regional or national basis through studying those sources, reporting back to Congress, and promulgating new national regulations. *See CWA Sections 402(p)(5)-(6)*. Pursuant to Section 402(p)(6), "the Administrator ...shall issue regulations....which designate stormwater discharges to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources." It is important to note that the CWA clarifies that the term "discharge" when used without qualification includes a discharge of a pollutant and a discharge of pollutants." *See CWA Section 502(16)*.³

Pursuant to CWA Sections 402(p)(5)-(6), EPA expanded the Phase I stormwater program to include smaller MS4s and to expand the construction stormwater program to include active land disturbing construction sites of greater than or equal to one acre. This action is referred to as EPA's "Phase II" stormwater program. But EPA's stormwater program expansion only includes additional point sources for NPDES permitting. EPA's CWA authority is still bound by the limitation that the NPDES permit program regulates the discharge of *pollutants* discharged from point sources to waters of the U.S.⁴ *See Waterkeeper Alliance et al. v. EPA*, 399 F.3d 486 (2d Cir. 2005)("In other words, unless there is a 'discharge of any pollutant,' there is no violation of the Act, and point sources are, accordingly, neither statutorily obligated to comply with EPA regulations for point source discharges, nor are they statutorily obligated to seek or obtain an NPDES permit.")

³ To further clarify and avoid any confusion regarding the limited scope Congress placed on the NPDES permitting program and authority, "[t]he term 'discharge of a pollutant' and the term 'discharge of pollutants' each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." CWA Section 502(12)

⁴ The NPDES permit program is necessitated by the Clean Water Act's general prohibition against the discharge of pollutants unless authorized by permit. CWA Section 301. The discharge of water (absent pollutants) is not prohibited.

When it expanded the MS4 permitting program through the Phase II program, EPA recognized that the new MS4 general permit program to be less onerous and more flexible than the Phase I MS4 permitting program. Thus, EPA established the “six minimum control measures” as the basis for its small MS4 permitting program.⁵ EPA also has expressly stated its priority for using non-numeric effluent limitations in stormwater permits and to implement approved Total Maximum Daily Loads (“TMDL”). See *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits* (www.epa.gov/npdes/pubs/swpol.pdf) (“1996 Interim Permitting Approach”) and *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs* (www.epa.gov/npdes/pubs/final-wwtmdl.pdf) (“TMDL/Stormwater Memo”).⁶

The Draft MS4 Permit must be analyzed against these CWA authorities and EPA’s own rulemakings and related guidance.

EPA’s Proposed WQBELs Are Overly Burdensome and Unjustified

The Draft MS4 Permit contains unnecessarily complex and overly burdensome water quality-based effluent limitations (“WQBELs”). In fact, EPA arguably has turned the typical NPDES permit development and implementation processes on their head and shifted the bulk of the WQBEL responsibilities to the permittee. The Draft MS4 Permit Sections 2.1 and 2.2 set forth a far too complex, expensive, and unjustified process – particularly with the mandates contained in the Water Quality Response Plan (“WQRP”) – that places the responsibility on the permittee (MS4 operator) to prove a negative; that the MS4 is not causing or contributing to a water quality violation. More typically, the permit writer is responsible for assessing and analyzing the nature of the permittee’s discharge, reasonable potential to violate a water quality standard, and then to develop appropriate effluent limitations. See NPDES Permit Writers’ Manual (<http://cfpub.epa.gov/npdes/writermanual.cfm>) at 6-1 *et seq.*

This exercise becomes even more difficult when the permittee attempts to use the EPA’s or New Hampshire’s water quality standards documents cited at Section 2.1.1(b). Neither of these standards regulations was developed for wet weather discharges, like those subject to the Draft MS4 Permit. Instead, they were derived for low-flow receiving stream conditions and continuous, steady-state discharge scenarios, neither of which is relevant to precipitation-related wet weather discharges, let alone snow melt. EPA raised this particular concern in its 1996 Interim Permitting Approach (at 6):

⁵ The minimum control measures are: Public Education and Outreach; Public Participation/Involvement; Illicit Discharge Detection and Elimination; Construction Site Runoff Control; Post-Construction Runoff Control; and Pollution Prevention/Good Housekeeping

⁶ According to EPA’s TMDL/Stormwater Memo: The policy outlined in this memorandum affirms the appropriateness of an iterative, adaptive management BMP approach, whereby permits include effluent limits (*e.g.*, a combination of structural and non-structural BMPs) that address stormwater discharges, implement mechanisms to evaluate the performance of such controls, and make adjustments (*i.e.*, more stringent controls or specific BMPs) as necessary to protect water quality.

Potential problems of incorporating inappropriate numeric water quality-based effluent limitations rather than BMPs in storm water permits at this time are significant in some cases. Deriving numeric water quality-based effluent limitations for any NPDES permit without an adequate effluent characterization, or an adequate receiving water exposure assessment (which could include the use of dynamic modeling or continuous simulations) may result in the imposition of inappropriate numeric limitations on a discharge. Examples of this include the imposition of numeric water quality criteria as end-of-pipe limitations without properly accounting for the receiving water assimilation of the pollutant or failure to account for a mixing zone (if allowed by applicable State or Tribal WQS). This could lead to overly stringent permit requirements, and excessive and expensive controls on storm water discharges, not necessary to provide for attainment of WQS.

EPA's water quality standards approach contained in its Multi-Sector General Permit (2008) (<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>) adequately fixes and resolves this issue. In that general permit, EPA relies extensively on the implementation of technology-based controls to meet water quality-based requirements, but reserves the right to require the permittee to do more *if the permitting authority* can identify a particular need. As explained in the MSGP Fact Sheet (http://www.epa.gov/npdes/pubs/msgp2008_finalfs.pdf) (at 55):

Each permittee is required to control its discharge as necessary to meet applicable water quality standards. EPA expects that compliance with the other conditions in this permit (e.g., the technology-based limits, corrective actions, etc.) will result in discharges that are controlled as necessary to meet applicable water quality standards. If the permittee becomes aware, or EPA determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions and EPA notification are required. In addition, at any time EPA may impose additional, more stringent WQBELs on a site-specific basis, or require an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

That approach keeps the proper focus on the permitting authority to identify discharges that are causing water quality impacts, not the permittee to jump through hoops to prove that it is not causing such impacts. Obviously, well-drafted TMDLs with properly developed wasteload allocations could be directly applicable to MS4s within such watersheds (depending upon the specific requirements of the TMDL and discharges from the MS4), but the MSGP approach helps to address and resolve the other complexities associated with impaired waters without approved TMDLs. Once EPA approves a TMDL, it obviously is in the most appropriate situation to alert affected MS4s regarding its approval of a TMDL and its applicability to the MS4.

In the real world situations, these issues get even more complicated and EPA's prior efforts and guidance related to applying WQBELs to MS4 discharges reflect a much more flexible and iterative approach than the Draft MS4 Permit, which places unjust responsibility on the MS4 operator to prove a lack of impact rather than EPA identifying the impact. Hence, as proposed in the Draft MS4 Permit, EPA's approach to water quality standards compliance is arbitrary and capricious and overly burdensome. The Agency has not provided an adequate legal or technical basis for many (if not most) of the mandates contained in Sections 2.1 and 2.2. Conversely, EPA has successfully adopted a more simplified and rational approach to water quality compliance in its prior MSGP.

EPA's MEP Mandates Also Exceed Its Legal Authority

When Congress added Section 402(p) to the CWA in 1987, it differentiated the technology-based effluent limitations standard for MS4s relative to the rest of the NPDES permit program by creating a new standard called "maximum extent practicable" ("MEP"), as opposed to the more traditional BAT/BCT standard applied to industrial stormwater and other wastewater discharges. However, Congress did not specifically define the MEP standard. The essence of the MEP standard is explained best, perhaps, by EPA's *NPDES Permit Writer's Manual* (cited above) in its discussion of EPA's Phase II rulemaking and small MS4 program (at 2-9):

Phase II of the stormwater program extended the NPDES permitting program to small MS4s in urbanized areas (64 FR 68722, December 8, 1999). The Phase II MS4 regulations require small MS4s to develop a program to address six *minimum control measures* that include BMPs and measurable goals for each BMP. Permit writers have the option of permitting regulated small MS4 operators using an individual permit, a general permit, or a modification of an existing Phase I MS4's individual permit (although the vast majority of small MS4s have been covered under general permits).

* * *

MEP is not precisely defined so as to allow maximum flexibility in MS4 permitting to optimize reductions in stormwater pollutants on a location-by-location basis (64 FR 68754, December 8, 1999). Therefore, permit writers must rely on application requirements specified in the regulations and the applicant's proposed management program when developing appropriate permit conditions. The stormwater Phase II rule was challenged in the courts, with the U.S. Court of Appeals for the Ninth Circuit generally upholding the Phase II rule but remanding three issues back to EPA. EPA issued guidance on April 16, 2004 for how new general permits should address the remanded issues of public availability of notices of intent (NOIs), opportunity for public hearings, and permitting authority reviews of NOIs....

The remanded portion generally is not relevant to these comments, recognizing that EPA Region 1 has adequately included appropriate public review and hearing opportunities. However, the Draft MS4 Permit's expansion of the basic six minimum control measures is

problematic and unjustified. EPA Region 1 has added extraneous and unjustified complexity to the MEP requirements, contravening the type of flexibility envisioned by EPA Headquarters' *NPDES Permit Writer's Manual* and raising significant legal concerns. Hence, the Draft MS4 Permit should be significantly curtailed and, if EPA Region 1 is so inclined, it should develop appropriate guidance documents to provide NH MS4s assistance with various methods for achieving the goals of the six minimum control measures. In fact, much of the excessive verbiage and discussion in the permit – and particularly the draft Fact Sheet (including the 2008 Fact Sheet) – read more like guidance than typical NPDES general permits.

Generally, the Represented Towns have few comments or objections to either the public education or public involvement aspects of the Draft MS4 Permit (Sections 2.3.2 or 2.3.3), other than to indicate that they could be set forth more concisely and EPA should ensure that it provides MS4 operators with maximum flexibility. EPA should review this section with affected stakeholders and consider changing the term “should” to “may” (or “should consider”) when used in these sections. MS4 operators are sophisticated enough to manage appropriate public education and involvement programs that are tailored to their unique citizenry.

The Draft MS4 Permit's Illicit Discharge Detection and Elimination (“IDDE”) program (Section 2.3.4) is overblown and unnecessary in its detail. Much of the Draft MS4 Permit language and related Fact Sheets (2008 and 2013) read like “guidance” and should be removed from the permit and, at EPA's discretion, developed as guidance for MS4 operators. There is absolutely no reason why EPA Region 1 cannot and should not adopt the same IDDE program set forth in the expired 2003 Small MS4 Permit for NH. The addition of specific dry weather inspections contained in the Draft MS4 Permit would help to enhance the 2003 permit terms, recognizing that dry weather visual inspections have proven to help MS4s to identify and address possible illicit discharges.

In its Fact Sheets, EPA Region 1 indicates that the expansion of the IDDE program is in response to lessons learned by the Clean Charles Initiative. But that initiative has no bearing and cannot possibly be used as an example for small New Hampshire MS4 operators. EPA's simple description on its website indicates that the initiative has taken almost 20 years to develop, includes far more participants (including with far more resources, such as the federal government) and credits the results of extensive litigation to achieve its ends. See <http://www.epa.gov/region1/charles/initiative.html>. To indiscriminately apply that type of program to small MS4s is arbitrary and capricious.

In addition, adding wet weather sampling represents a resource intensive and extravagant effort to find what amounts to a “needle in a haystack” – by searching for intermittent illicit discharges that otherwise do not show up in dry weather visual inspections – is to expand the small MS4 permit program into something that it cannot be at this point in its development. And, while entirely inappropriate for the Draft MS4 Permit, much of EPA's IDDE proposed program and Fact Sheet discussions might be valuable information for small MS4s to have access to through voluntary and informative guidance. Hence, the Represented Towns assert that EPA Region 1 should adopt a more simplistic IDDE program based on the 2003 permit. In

doing so and converting its excess to guidance, EPA will avoid the legal and technical problems associated with forcing inappropriate provisions into the permit.

The Draft MS4 Permit's construction stormwater provisions (Section 2.3.5) generally are consistent with the six minimum control measures intent. However, EPA Region 1 should note that EPA has proposed significant revisions to the Construction & Development Effluent Limitations Guidelines that will affect EPA's Construction General Permit ("CGP").⁷ Hence, holding out the current CGP as a model must be accompanied by a disclaimer regarding changes to the BMPs and other provisions that underlie that permit. In addition, the 2008 Fact Sheet (at 51) discusses requirements for regulating materials "on" construction sites, and the Draft MS4 Permit implies requiring controls regarding activities and operations on the site. As illustrated in the *Federal Register* notice cited in the footnote on this page, EPA has no authority to regulate activities on a site, only those activities that lead directly to the discharge of pollutants from a point source to a water of the U.S.

The Draft MS4 Permit's Post Construction Stormwater Management mandates (Section 2.3.6) are illegal and exceed EPA's CWA authority. EPA cannot require any site to mirror the pre-development hydrology, control stormwater flow or volume absent pollutant discharges, or in any way regulate impervious surface through the NPDES permit program. The section appears to be based on a National Stormwater Rulemaking that EPA has been unable to even propose on a national basis, and its attempts to insert its unproven program into the Draft MS4 Permit is illegal and unreasonable. Until EPA can demonstrate its legal authority and economic justification for such mandates, it should not attempt to force them upon small New Hampshire MS4 operators. Further, as set forth above, any expansion of the stormwater program must follow the CWA Sections 402(p)(5)-(6) process, including a report to Congress. EPA has not yet completed any such process even though it has separately committed to doing so. This entire section must be redrafted.

Stormwater (*i.e.* precipitation leading to runoff) is not a "pollutant" under the CWA and, therefore, the flow of stormwater – in and of itself – cannot be regulated as a "pollutant" under the Act. Recently, the Eastern District of Virginia held just that. In *Virginia Department of Transportation et al. v. EPA*, the court held that the CWA did not confer authority to regulate stormwater flow because stormwater is not a "pollutant," under that term's statutory definition. 1:12-CV-775, at *5 (E.D. Va. Jan. 1, 2013) (*see* attached slip opinion). The court rejected EPA's argument that stormwater flow could be regulated as "proxy" or "surrogate" to effect levels of pollutants already present within a water body, though it may be appropriate, in different circumstances, to impose stormwater flow restrictions as a means to regulate specific pollutant levels demonstrated as being discharged within the same stormwater flow. *Id.* at *5-*6.

⁷ The C&D ELG revisions were necessitated by litigation and EPA's subsequent admission that it had exceeded its authority in adopting certain provisions in its earlier ELG rulemaking. *See* 78 Fed. Reg. 19,434 (April 1, 2013) for EPA's discussion regarding the litigation history and reasons for revising its earlier C&D ELG. These issues are directly relevant to the Draft MS4 Permit.

Aspects of EPA's effort to regulate "flow" raise additional legal issues. In its efforts to regulate stormwater flow, EPA creates significant data collection and assessment burdens, and also mandates that the permittees impose a range of local land use restrictions, regardless of whether or not the permittees are the entities vested with the authority to do so under local law. EPA Region 1 wants to tell New Hampshire towns how to approve projects that include impervious surfaces (roads, parking lots, roofs, etc.), collect data, conduct assessments and file reports about land-use, attempting to force green infrastructure and other requirements that may not be appropriate for such towns.

The Supreme Court has repeatedly rejected finding federal authority under the CWA to go so far as to usurp the "quintessential state and local power" that is the "[r]egulation of land use." *Rapanos v. U.S.*, 547 U.S. 715, 738 (2006) (Scalia, J. plurality) (citations omitted). See also *Solid Waste Agency v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 174 (2001) (rejecting expansive reading of CWA jurisdiction because of "significant constitutional questions raised" by "impingement of the States' traditional and primary power over land and water use"). These cases turned on the interpretation of the jurisdictional phrases "the waters of the United States" and "navigable waters," and held that even by using those terms to broadly define the proper subject matter of federal jurisdiction under the CWA, Congress did not authorize federal regulators to supplant local land use decision-making. *Rapanos*, 547 U.S. at 738-39 ("We ordinarily expect a 'clear and manifest' statement from Congress to authorize an unprecedented intrusion into traditional state authority. The phrase 'the waters of the United States' hardly qualifies." (citation omitted)); *Solid Waste Agency*, 531 U.S. at 174 ("We thus read the statute as written to avoid the significant constitutional and federalism questions raised by respondents' interpretation.").

The net result of this section of the Draft MS4 Permit is to impose *actual* federal regulation of land use in small New Hampshire towns. The NPDES permitting program is bound by its focus on the "discharge of pollutants," a term that is statutorily defined as the "addition of any pollutant to navigable waters." 33 U.S.C. § 1362(12). Thus, the NPDES permitting program is – as it must be – directly limited in its reach by the jurisdictional limits applicable to the CWA as a whole, which bar the federal regulation of local land use.

EPA's efforts to regulate impervious surfaces also raise legal issues about whether such surfaces actually qualify as "point sources" under the NPDES permit program. Impervious surface, on its own, cannot be subject to regulation under the NPDES permit program because impervious surface is neither a point source nor a pollutant. Rather, it is a feature of the landscape that indirectly influences how water is carried on and off the land. Congress predicated the stormwater permitting program in CWA Section 402(p) on point source discharges of pollutants from certain categories of dischargers, including MS4s and industrial activities.

Congress defined "point source" to mean "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other

floating craft, from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14). Impervious surfaces such as roofs, parking lots, and roads clearly are not point sources. Impervious surfaces do not channelize water. Instead, sheet flow that travels across impervious surfaces is considered non-point runoff, which is not regulated under the stormwater permitting program or subject to enforceable wasteload allocations under the TMDL program.

If EPA now interprets “point source” to include impervious surfaces, it renders that term meaningless and clearly contradicts Congressional intent to define the term and differentiate “point sources” from “non-point sources.” As noted by the Second Circuit Court of Appeals, “the phrase ‘discernible, confined, and discrete conveyance’ cannot be interpreted so broadly as to read the point source requirement out of the statute.” *Cordiano v. Metacon Gun Club, Inc.*, 575 F.3d 199, 219 (2d Cir. 2009). Such a broad interpretation would be contrary to the structure of the CWA. The Act defines the term “point source,” and all other flows of water are nonpoint sources, the regulation of which is left to the states. *Id.* at 219-220.

EPA's NPDES regulations define the extent to which surface runoff can in certain circumstances constitute point source pollution. The definition of “Discharge of a pollutant” includes “additions of pollutants into waters of the United States from: surface runoff *which is collected or channeled by man.*” 40 CFR § 122.2 (emphasis added). By implication, surface water runoff which is neither collected nor channeled constitutes nonpoint source pollution and consequentially is not subject to the CWA permit requirement. *See Hardy v. N.Y. City Health & Hosps. Corp.*, 164 F.3d 789, 794 (2d Cir.1999) (relying on “the familiar principle of *expressio unius est exclusio alterius*, the mention of one thing implies the exclusion of the other”).

Note also that for many of these same reasons, the Draft MS4 Permit’s requirements related to ground water recharge and infiltration (Section 3.1) also exceed EPA’s authority. Again, this is not to say that the four Represented Towns objects to certain of these environmental controls and the resulting benefits; in fact they have passed similar ordinances without being mandated by EPA. But the key issue is that individual towns or the State of New Hampshire (if appropriate) take responsibility for determining their own appropriate controls to achieve their ends using their own legal mechanisms that are different from and independent of the Clean Water Act. Conversely, EPA’s Draft MS4 Permit represents an ill-conceived attempt to mandate these practices through the heavy-handed NPDES permit program, where no authority for such mandates exists.

In similar fashion to other aspects of the Draft MS4 Permit, EPA Region 1 has expanded the Good Housekeeping and Pollution Prevention section (2.3.7) well beyond what is necessary. To the extent that the Draft MS4 Permit does not focus on the discharge of pollutants from point sources to waters of the U.S., many of those provisions are not justified. This section is rife with mandates for how to operate or conduct activities “on site” and EPA has not taken the necessary steps to focus on the nature of the pollutant discharges and how its mandates reduce site discharges.

All of EPA's efforts to unnecessarily expand the requirements in the 2003 MS4 Permit also significantly add cost to permit implementation. EPA Region 1 admits that permit compliance will require a "substantial investment" of limited town resources. *See* draft 2013 Fact Sheet at 148 *et. seq.* The Represented Towns' limited resources are derived mainly from property taxes, which EPA admits does not provide a consistent source of funding for MS4 implementation. *Id.* Attachment 1 at 30. EPA's simple response to the problems facing such NH municipalities is for them to develop a stormwater utility to further extract fees from town residents or to bring enforcement actions with significant penalties for illicit discharges into the MS4. *See id.* at 148-160 (discussion regarding stormwater utilities) and 82 (use of enforcement to fund MS4 compliance).

But EPA's responses to comments and suggested solutions fail to reflect any real understanding regarding these towns' real world economics or revenue generating options to cover the extraneous mandates in the Draft MS4 Permit. The proper response is for EPA to conduct a more comprehensive cost-benefit analysis, significantly pare back the mandates contained in the draft permit, and add more flexible compliance approaches for the permittees. As discussed below, we believe a more interactive approach to mandates, costs, and identifying alternatives that are more efficient and effective are mandated by the Unfunded Mandates Reform Act.⁸

Our informal coalition of New Hampshire towns would be willing to sit down with EPA Region 1 staff and walk through specific concerns in this section (and other sections) of the Draft MS4 Permit to ensure they are properly based on EPA's CWA authority and are set forth in the most efficient and effective manner.

Regulatory Flexibility and Unfunded Mandates Reform Acts

Finally, the February 12, 2013 *Federal Register* notice regarding the availability of the Draft MS4 Permit states that the Regulatory Flexibility Act and Unfunded Mandates Reform Act requirements do not apply to NPDES general permits. EPA Region 1's position on complying with those statutes is undermined not only by the law itself but also by EPA Headquarters policies and public statements. Even if there was any doubt by EPA Region 1's General Counsel regarding its legal position, it should comply with the spirit of and intent Congress set forth in those Acts. But, there is little doubt that such laws apply and EPA Region 1 must rectify its oversight.

⁸ EPA's website summarizes its responsibilities under Section 203 of the UMRA as follows: "Section 203 of UMRA applies to *all* regulatory requirements that might significantly or uniquely affect small governments. Before establishing a requirement that might significantly or uniquely affect small governments, §203 requires federal agencies to develop a plan to: provide notice of the requirements to potentially affected small governments; enable officials of small governments to provide meaningful and timely input for any proposal containing significant federal intergovernmental mandates; and inform, educate, and advise small governments on compliance with the requirements." <http://www2.epa.gov/laws-regulations/summary-unfunded-mandates-reform-act> (emphasis in original). We assert that EPA has not met this standard for the Represented Towns.

The Small Business Administration Office of Advocacy is charged, in part, with ensuring that federal agencies comply with the RFA. In 2006, SBA Advocacy filed comments on EPA's proposed MSGP, providing a legal analysis for why EPA's general permits are, in fact, subject to the RFA. *See* SBA Advocacy's March 14, 2006 comments letter to EPA (http://www.sba.gov/sites/default/files/files/epa06_0314.pdf) at 2. The same logic would apply to the UMRA. In response, EPA provided a detailed discussion regarding its past legal analyses and intervening case law in its final MSGP *Federal Register* notice. *See* 73 Fed. Reg. at 56, 577 (Sept. 29, 2008). EPA ultimately concluded and committed to the following:

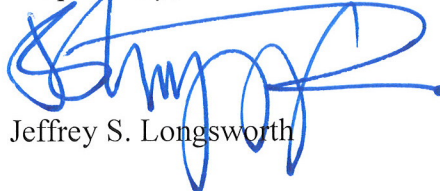
EPA hereby commits that the Agency will operate in accordance with the RFA's framework and requirements during the Agency's issuance of CWA general permits (in other words, the Agency commits that it will apply the RFA in its issuance of general permits as if those permits do qualify as "rules" that are subject to the RFA). In satisfaction of this commitment, during the course of this MSGP permitting proceeding, the Agency conducted the analysis and made the appropriate determinations that are called for by the RFA. In addition, and in satisfaction of the Agency's commitment, *EPA will apply the RFA's framework and requirements in any future MSGP proceeding as well as in the Agency's issuance of other NPDES general permits.* (emphasis added)

EPA Region 1's contrary approach is unjust. Instead, EPA Region 1 should recognize the substantial impact on a significant number of small New Hampshire towns and convene a meeting to address both the RFA and UMRA obligations.

* * * * *

On behalf of the Represented Towns, we appreciate the opportunity to comment on EPA Region 1's Draft MS4 Permit. If you have any questions or would like to discuss these comments further, please contact me directly. I also can arrange a meeting of the Represented Towns and EPA Region 1 to further discuss the issues before EPA Region 1 finalizes its small MS4 general permit.

Respectfully,



Jeffrey S. Longworth

Cc: Sumner Kalman, Attorney at Law, PC
Town Representatives for Atkinson, Kingston, Newton, and Plaistow, NH



*Thomas Tombarello, Chairman
Brenda Copp, Vice Chairman
James E. Devine
Hans Nicolaisen
Terry Treanor*

TOWN OF SANDOWN, NH

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Sandown, NH 03873
603-887-3646
Fax# 603-887-5163**

August 12, 2013

Newton Tedder
US EPA Region 1
5 Post Office Square- Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Dear Mr. Tedder,

On May 13, 2013 the United States Environmental Protection Agency (EPA) issued a Notice of Availability of the draft Small Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) General Permit for New Hampshire and currently seeks comment on the same. The Town of Sandown will be subject to compliance with requirements of the updated General Permit. The Town of Sandown has maintained coverage under NPDES since 2003 when, in accordance with MS4 requirements, the Town developed its initial Stormwater Management Program (SWMP). Since SWMP adoption, the Town has successfully implemented many of the Program's initiatives and various Town Departments have adopted the majority of best management practices described therein as standard operating procedures.

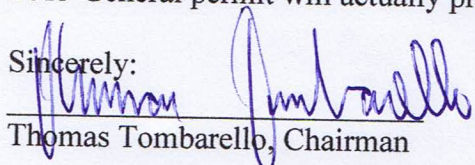
Upon reading of the 2013 New Hampshire Small MS4 Draft General Permit, in general terms, the Board of Selectmen is troubled to learn that a number of amendments appear to both "shift the burdens" of implementation from others to the municipality, as well as increase the amount of time required for proper administration of the Permit. Not only does the draft permit require compliance, but in many cases now requires municipalities to expend valuable and often limited resources in order to demonstrate and document such compliance. We presume Sandown may be one of the smaller New Hampshire municipalities that will ultimately be subject to requirements of the 2013 General Permit. Based upon our reading of the amended General Permit we are concerned the extent of time and resources required in order to properly administer a future SWMP for a modest sized municipality, like Sandown, will prove to be roughly the same as that required of a much larger municipality. We are also concerned the extent of time and other resources which will now be required in order to demonstrate and document General Permit compliance will quickly become a burden to the Town of Sandown in terms of manpower and financial resource allocation. We presume the EPA's recognition of this potential gave rise to the inclusion of language contained in Section 1.10(c) of the General Permit, which reads: "The permittee is encouraged to maintain an adequate funding source for the implementation of this program. Adequate funding means that a consistent source of revenue exists for the program." Talk about unfunded federal mandate!

Other specific concerns include the following:

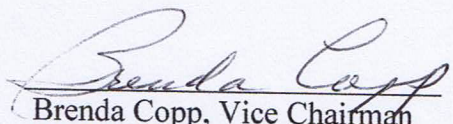
1. Under Section 2.2.1 of the 2013 General Permit specifies "Approved Total Maximum Daily Load (TMDL)" values for bacteria and phosphorous applicable to the Exeter River and Showell Pond. Appendix F to the Permit specifies the following reduction percentages, required to in order to achieve the EPA "approved" TMDL limits, to be as follows: (a) Bacteria at the Exeter River - 82%; and (b) Phosphorous at Showell Pond - 69%. While the levels of desired TMDL reduction may be desirable, from the perspective of the Town of Sandown we have the following concerns:
 - What is the level of confidence in data used to establish TMDL limits and target reduction values? How current is it? Where did it come from? Is it accurate?
 - When one considers the limited volumes of stormwater directly tributary to each of the two water bodies from land and facilities actually owned and managed by the Town of Sandown rather than private parties, we suspect it may not be possible for the municipality to achieve the reductions in TMDL loading sought by the EPA. In the case of bacteria loading to the Exeter River and phosphorous loading to Showell Pond, we suspect the source of excess TMDL levels are likely privately owned septic systems, agriculture, lawn maintenance and other "homeowner" activity rather than stormwater runoff from the municipal highway system. Do the prescribed TMDL limits cited in Appendix F set the town up to fail? We are concerned they do.
2. Section 2.2.3 acknowledges Sandown's location in the Great Bay Watershed and goes on to require municipalities that discharge stormwater directly to nitrogen impaired water bodies (Exeter River) in the Great Bay Estuary watershed to develop a three phase plan, through an iterative process, in accordance with the provisions of Section 2.2.2 for the reduction of nitrogen. Section 2.2.2 is a prime example of the "burden shifting" I commented on above. It is very clear to us the Town of Sandown will be forced to seek outside assistance on an annual basis, at great expense, in order to insure compliance with the provisions of Sections 2.3.4.2 through 2.3.4.11 of the General Permit.
3. In several Sections of the draft 2013 General Permit municipalities will be required to produce relatively sophisticated mapping (see Section 2.3.4.6) in a relatively short time frame. While those larger municipalities that presently enjoy in-house GIS capabilities should be able to satisfy these mapping requirements with little difficulty, we see this type of requirement as burdensome, particularly for smaller towns as such Sandown that presently do not have in-house mapping capabilities. We have similar concerns related to screening and sampling requirements. One example is contained in Section 2.3.4.8(d), which in the case of Sandown, will force the Town to rely upon the services of a contracted environmental testing firm to periodically collect and analyze water samples.

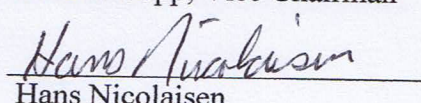
While there are other attributes of the draft 2013 General Permit that cause us similar concerns as those examples cited above, we believe consideration of those described serve to properly reinforce our overall opinion that requirements imparted upon New Hampshire municipalities, especially smaller towns such as Sandown, will serve to create an undue burden. Most importantly, in the case of Sandown, we find it difficult to believe that the dramatic increase in annual cost required to implement a SWMP compliant with the draft 2013 General permit will actually produce better results than the current program.

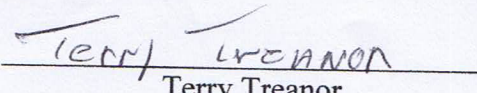
Sincerely:


Thomas Tombarello, Chairman

James E. Devine


Brenda Copp, Vice Chairman


Hans Nicolaisen


Terry Treanor



TOWN OF STRATHAM

INCORPORATED 1716

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August 12, 2013

Newton Tedder
US Environmental Protection Agency, Region 1
5 Post Office Square – Suite 100
Mail Code-OEP06-4
Boston, MA 02109-3912

RE: 2013 Draft NH Small MS4 NPDES General Permit

Dear Mr. Tedder,

Thank you for the opportunity to comment on the above referenced draft permit prior to its issuance. This is a very important matter to the Town of Stratham and the ability to comment on the Permit's potential effect on our community is essential to its eventual adoption by your agency and compliance by those identified as a participant under the Permit. We agree that clean water as defined under the Clean Water Act is essential to the continued enjoyment and economic vitality of the southern New Hampshire region. It is with this understanding and intent that we provide our comments specific to Stratham on the current draft of the Permit. The Town of Stratham would also incorporate by reference the comments provided by special counsel Sheehan, Phinney, Bass, & Green, PA dated August 13, 2013 as part of the New Hampshire Stormwater Coalition's comments, of which the Town was a participant.

Our points of concern and comments are as follows:

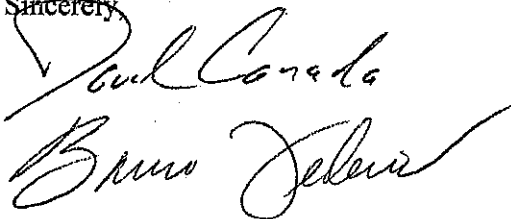
1. The Town of Stratham was not covered by the 2003 NH Small MS4 NPDES General Permit. Consequently, Stratham is new to this process and has not implemented any of the Phase I activities required under that permit. In reviewing the draft 2013 Permit, it is difficult at times to discern if communities newly covered by the Permit are recognized and differentiated from those communities who have already accomplished their Phase I objectives. To that end, a concerted effort should be made to designate which Phase II Permit conditions are applicable to all MS4 communities immediately and which are delayed for a certain period for the newly enrolled in the program. Although some effort has been made to make the distinction, it is not clear throughout the draft Permit.
2. The projected costs of implementing the draft Permit are beyond comprehension. First year estimates for Stratham have a range of \$262,700 to \$374,700 with annual costs ranging between \$231,700 to \$330,200. This is a five-year commitment of between \$1,189,500 to \$1,695,000. These costs would be equivalent to 4% - 6% of our annual operating budget and 42% - 61% of our current annual Highway Maintenance Budget.

The annual budgetary impact will be staggering to small towns throughout New Hampshire.

3. We are concern with the timing of the adoption of the eventual Permit. In New Hampshire, most Towns seek funding authority once per year at Town Meetings. The Town of Stratham has its Town Meeting in March of each year. In order to meet the statutory deadlines and to have a full comprehensive review of budgeted items, costs need to be known by the preceding December in order to include the budgetary warrant article required to give the public notice of the request for funding. If the adopted Permit requires immediate funding for actions to be taken under the Permit, there may not be funds authorized to expend towards those requirements. This is especially troublesome to communities, like Stratham, who are new to the Permit terms and therefore do not have an ongoing budgetary line item for this purpose. For those newly covered municipalities, we would request a one-year suspension of requirements under the Permit in order to seek funding for those requirements.
4. Lastly, there is a presumption that all New Hampshire MS4 communities operate in an urban, and if not, a semi-urban environment. We make this inference from the draft Permit requirements to mechanically sweep our streets and parking lots on a frequency determined by water quality results. Of the approximately 90 miles of town maintained highways, it is estimated that less than 25% are curbed. Without curbing, the exercise of street sweeping is not practical and largely inefficient/ineffective since the debris sought to be collected by the sweeping has been deposited into the adjacent ditchline by the sheet flow of stormwater. Uncurbed streets naturally wash clean the paved surface and stormwater is infiltrated into the ground under the ditch line. The ineffectual sweeping of Stratham highways would not justify the cost of such an operation.

These are our observations as a newcomer to this permitting process. There are others members of the NH Stormwater Coalition, who are much more versed in the draft Permit's terms and impacts to their communities. These are the ones that became apparent to us. We thank you for this opportunity to comment and truly appreciate the EPA's willingness to extend the comment period to the present date. It was an enormous help in absorbing much of this material. We hope our comments are met with their due respect and appreciation for the challenges the Permit requirements will present to us.

Sincerely,

The block contains two handwritten signatures. The first signature, in dark ink, appears to read 'Paul Conada'. The second signature, in a lighter, more cursive script, appears to read 'Bruno Tedder'.

Board of Selectmen

PRD

cc: Lynn J. Preston, Esq., Sheehan Phinney Bass + Green, PA



**Town of Amherst
Board of Selectman**

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jomara@amherstnh.gov

*Received
8/26/13*

August 12, 2013

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5 Post Office Square – Suite 100
Mail code – OEP06-1
Boston, Ma. 02109-3912
Attn: Newton Tedder

RE: Comments to the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

Please accept the following comments on behalf of the Town of Amherst regarding the proposed 2013 Draft MS4 NPDES Permit issued on February 12, 2013. Clean water is important to everyone, the town acknowledges the complexity of such requirements and expresses its appreciation for granting two extensions. The extension has given Amherst and other communities an opportunity to the best of our individual skill level to review the proposed language contained in the permit and consider its ramifications.

Amherst would also like to use this format to acknowledge the staff of NHDES who have worked with us, the Nashua Regional Planning Commission, and the Baboosic Lake Association to work cooperatively and further opportunities as we serve our citizens in a cost effective manner and work toward the Clean Water Act requirements. The Town of Amherst certainly hopes once the comment period closes and EPA begins the task of addressing comments, it will find common ground that all can work from.

Because of our limited staffing resources, and the complexity of the permit proposals, the Town of Amherst has committed itself to the MS-4 Coalition. Besides the written comments already presented by our Public Works and Community Development Directors, additional comments will be submitted on behalf of the Town of Amherst through Coalition Council, Sheehan, Piney, Bass & Green, PA.

We want to be crystal clear; the Town of Amherst supports clean water. However requirements must be based on solid data not limited testing and "good engineering assumptions". Baboosic Lake is included in the 2010 list of threatened or impaired waters that require a TMDL. A report prepared and presented to EPA in January of 2011 (Project: EPA-SMP-07-002) does not

acknowledge the existence of the town's Community Septic serving forty-four homes (dating back to 2005). The report assumes each one of these has their own individual septic within one hundred fifty feet of the lake. We question the prosperous conclusions that have been made. It is extremely important that water sampling information used as a basis for the impairment requirements are up to date and reflect current EPA guidelines.

Section 2.2.7.d.iii requires sweeping of uncurbed streets. We question the practicality of this. Amherst has ground speed controls mounted on almost all of its own equipment limiting the amount of product dispensed. We use a fifty-fifty salt sand mix to treat our roads during winter months. Both practices limit the amount of chlorides released to the environment. This mixture of brine and sand is often cast several feet from the asphalt edge during plowing. Uncurbed streets are in effect, self-cleaning, sweeping is wasteful and an inefficient use of limited resources.

Again, I encourage you to meet and confer, at the close of the comment period, with all MS-4 communities in an effort to develop the most efficient and effective method to comply with the permit objectives. We believe, and hope you do as well, that this will foster a better understanding between the EPA and local communities. We recommend this be done while EPA responds to comments which aid in revisiting the permit to ensure that local communities receive a more comprehensive permit, preserves the environment, and wisely uses limited local resources.

Sincerely,

A handwritten signature in black ink, appearing to read "James O'Mara". The signature is stylized with a large, looped initial "J" and a cursive "O'Mara".

James O'Mara
Town Administrator
Town of Amherst, NH

Cc: Amherst Board of Selectman
Sarah Marchant, Office of Comm. Dev. Dir.
Bruce Berry, Dir. Of DPW
John E Peltoner, Esq. S P B & G
Vicky Quiram, NHDES



DEPARTMENT OF PUBLIC WORKS

22 Dodge Road

Amherst, NH 03031

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bberry@amherstnh.gov

Ms. Thelma Murphy
Office of Ecosystem Protection
Office of Environmental Protection Agency
One Congress Street Suite 1100
Boston, Massachusetts 03114

Re: 2013 Draft NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems Located in the State of New Hampshire. NHR041000

Dear Ms. Murphy,

The Town of Amherst appreciated the opportunity to present oral comments on Thursday March 14, 2013 followed by these written comments.

The Town of Amherst starts its annual budget process in September, with a budget finalized in early January, and an SB-2 Deliberative presentation in February. The final budget goes to a ballot vote in March to become effective July 1. All proposed budget increases require hard data backup and scrutiny throughout the submittal process. A five year pending MS-4 permit without the benefit of solid backup data has not and will not make necessary funding available.

Section 1.5 Permit Compliance; *non-compliance of this permit constitutes a violation and grounds for enforcement action.* After careful review, it appears upon implementation of the new permit as written, each MS-4 community is immediately in violation. Is this what EPA planned? How does any municipality prepare through the budgeting process to implement the permit without sufficient time between the permit language becoming finalized and an implementation date? How does a community budget for something without the benefit of knowing the financial impact in advance?

Section 1.6 Continuation of this Permit; *if the MS4 operator does not submit a timely, complete and accurate NOI on the due date of the NOI the permit will terminate.* Part II Summary of Receiving Waters requires Amherst NH submit a plan to reduce its TMDL for Baboosic Lake. Report EPA-SMP-07-002 Section 3-4 Acknowledges the report is based on assumptions, professional judgment and there are limitations to the analysis. How can a municipality be held accountable for a NOI based on limited scientific data? Should a municipality be held legally responsible and accountable to manage a TMDL without sufficient baseline data to begin with?

The first paragraph below was submitted to DES as part of a full NHDES Watershed Grant application in 2008. The Phosphorus calculations were submitted as part of NH State Aid Grant pre-application. None of this information is included in the 2011 report (EPA-DMP-07-002) therefore flawing the TMDL data Amherst will be bound to

The Baboosic Lake Community Wastewater System project is located in the town of Amherst in the Baboosic Lake watershed. The sources of water quality impairment targeted by this project are failed septic systems, problem systems, or systems in close proximity to both surface water and ground water. Phase 1 of the project, which serves twelve dwellings and provided a community equalization tank and two community leach fields was completed in 2004. Phase 2 construction is substantially complete and serves ten dwellings and provides future capacity for three additional lakefront dwellings. Phase 2 also added a pretreatment and denitrification system that serves both Phase 1 and Phase 2 users and doses pretreated effluent to the leach fields constructed under Phase 1.

Phase 3, the subject of this grant application, will provide a new collection system to serve the Clark Avenue area and an additional community pretreatment tank, which will increase the capacity of the overall system. The proposed area to be served by Phase 3 includes the thirteen homes with septic systems that are closest to the water's edge and sit at an elevation very close to lake level in an area where the groundwater table is most influenced by the lake water level. This lakefront area has experienced high water levels twice over the last three years. The project will provide a watertight collection system that will move the effluent away from this lakefront area, which will decrease phosphorus, nitrate, nitrogen, E. coli, and effluent nutrient discharges into Baboosic Lake.

BABOOSIC LAKE PHASE 3 PHOSPHORUS CALCULATIONS

Assumptions:

- ☐ Phosphorus concentration in household wastewater = 10 mg/L
- ☐ Average house occupancy = 2.3 people/house
- ☐ Wastewater produced per capita = 75 gpd/person

Phosphorus Discharged into Baboosic Lake by Phase 3 Properties:

$PO_4 = 10 \text{ mg/L} \times 2.3 \text{ people/house} \times 75 \text{ gal/day/person} \times 3.7843 \text{ L/gal} = 6.5 \text{ grams/house/day}$

$PO_4 = 6.5 \text{ grams/house/day} \times 365 \text{ days/yr} = 2.3 \text{ kg/yr}$

$PO_4 = 2.3 \text{ kg/yr} \times 13 \text{ Phase 3 Properties} = 30 \text{ kg/yr}$

Phosphorus Removal:

$Precipitation = 50 \text{ kg/yr}$

$Direct \text{ Land Use/Stormwater Runoff} = 63 \text{ kg/yr}$

$Shoreline \text{ Septic Systems} = \pm 100 \text{ systems} \times 2.3 \text{ kg/yr} = 230 \text{ kg/yr}$

$Total \text{ Phosphorus Contributions from Watershed} = 343 \text{ kg/yr}$

$2.3 \text{ kg} / 343 \text{ kg} = 0.7\% \text{ Removal per System Removed}$

$30 \text{ kg} / 343 \text{ kg} = 8.7\% \text{ Removal for Phase 3}$

Phosphorus Removal Total Project Summary:

Phase # of Properties Phosphorus Removed % of Total Watershed

Phase 1 1 2.3 kg 0.7%

Phase 2 4 9.2 kg 2.7%

Phase 3 13 30 kg 8.7%

Total 18 41.5 kg 12.1%

Phase 3 will provide 72% (30 kg/41.5 kg) of the total phosphorus removal for all three phases.

The Town of Amherst does not employ in-house engineering staff. Recognizing the most basic first step and the concerns based on the TMDL assumptions above, (90 day NOI completion) will require significant outside engineering, in this difficult economy, how can the Federal Government punish a community by setting it up for immediate non-compliance?

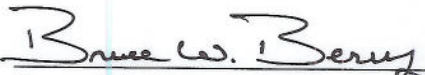
Section 2.3.4.6.a.ii Required Mapping Elements, basic request as part of the 2003 MS-4 permit. However it appears under **Section 2.3.4.8.b Statement of IDDE Program**

Responsibilities Is EPA expecting a municipality to inspect each and every private septic system within the MS-4 designated area? The Town does not have the authority to enter private property or to require homeowners to allow the Town access to septic systems without an obvious violation on a property. How can a municipality be held to an enforcement standard it has not been granted the authority from the State to enforce?

The Town of Amherst in partnership with area residents has demonstrated through the four phases of its community septic around Baboosic Lake that water quality is an important concern for the town. This is a priority, but it is imperative for all parties to start with accurate data.

It took approximately five years between the last comment period and the 2013 draft permit. At a minimum, Amherst encourages EPA to consider a ninety day window after publishing its comment responses to allow communities time to digest the answers to its questions.

Sincerely,


Bruce W. Berry, DPW Director


Sarah Marchant, Community
Development Director



TOWN OF AUBURN

Received
8/12/13

August 12, 2013

U.S. Environmental Protection Agency
5 Post Office Square – Suite 100
Mail Code-OEP06-1
Boston, MA 02109-3912
ATTN: Newton Tedder

RE: Comments to the 2013 Draft MS4 NPDES Permit

Dear Mr. Tedder:

On behalf of the Town of Auburn, please accept the following comments on the proposed 2013 Draft MS4 NPDES Permit issued on February 12, 2013.

The Town sincerely appreciates the granting of two extensions to allow affected Granite State communities an opportunity to appropriately review the proposed language contained in the draft permit and consider the ramifications of the permit change. We also want to formally acknowledge the staff at both the U.S. Environmental Protection Agency (USEPA) and the NH Department of Environmental Services (NHDES) for the time they have spent with the MS4 communities to better understand the permit requirements.

The Town of Auburn is also part of a MS4 Coalition of communities. Further comments, in addition to this letter, will be submitted on behalf of the Town of Auburn by Sheehan, Phinney, Bass & Green, PA.

In regards to general comments the Town offers the following:

Section 1.9.2 dealing with Historic Properties is unchanged from the 2003 permit; however, what has changed is the mapping and reporting requirements. The 2003 permit focused on outfalls, while with the new permit we will be documenting all drainage structures within our MS4 system. This potentially opens the Town up to onerous Section 106 reviews for each and every catch basin, detention pond and drainage swale that we need to work on.

Section 2.1.1.c establishes the requirement to remedy any conditions causing an exceedance of water quality standards within 60 days of a determination that our discharge is causing an exceedance. The section specifically spells out that the compliance clock begins to accrue immediately and continues until the source is remedied. There is no grace period. This, coupled with the fact that we have to conduct dry weather sampling of all of our outfalls at the same time, could put the Town into almost immediate non-compliance. The Town is asking for time to evaluate the water quality data NHDES has used to determine the 303 (d) list. Our initial suggestion is that within the first three years of the permit, we could prioritize our outfalls based on the use of the receiving water value (as determined by NHDES) and risk to the public. We can then implement a sampling program of the high value/high priority water bodies in Auburn that may not already be taking place by the Manchester Water Works and develop plans to remedy any sources of contaminants specifically from our MS4.

PO Box 309 • Auburn, NH 03032-0309

SELECTMEN: (603) 483-5052 • TOWN CLERK/TAX COLLECTOR: (603) 483-2281

BUILDING/ZONING: (603) 483-0516 • PLANNING: (603) 483-0799 • FAX: (603) 483-0518

Section 2.1.2 prohibits any new or increased discharges (including pollutant loadings). It is not clear to us whether this means the Town needs to notify NHDES every time we issue a driveway permit or add a catch basin to our drainage system? Do we also have to provide a waste load analysis for every driveway? This provision seems administratively burdensome to our small community, and we doubt NHDES has the resources to respond to such a requirement.

The reductions to meet the TMDL in Table F-1 are based on the highest measured sample ever taken in a water body and are not indicative of the overall water quality of the receiving water or the average levels expected from the MS4 discharges.

Section 2.2.2 establishes an iterative approach to addressing non-compliant discharges over the course of the five year permit. That timeframe is not practical given the far reaching extent of the water quality issues in southern New Hampshire. The legal standard of maximum extent possible, which was in the first permit, did not require immediate compliance with water quality standards. This permit deviates from that approach leading to the concern most communities have about immediate non-compliance issues. We anticipate it will take time to prioritize, plan, permit, fund and construct many of the structural BMP's that will be required. We suggest allowing the Town to work with NHDES during the first three years of the permit to prioritize our receiving waters and develop a plan to concentrate on the high value waters first.

Many of the water quality issues identified for communities in our region are based on very limited data such as samples taken within months of the 2006 flood. Before plans are developed for these areas, communities need to conduct more extensive sampling and study focused on these areas.

Section 2.2.2.a.ii.b.3 states that all planned BMP's shall be fully implemented within three years of the permit effective date. This is not feasible given that almost all of Auburn's outfalls discharge ultimately to impaired waterways and we would have to deal with all of them at once. The Town requests the ability to prioritize our outfalls to concentrate on the highest priority outfalls (i.e.-- discharges near Lake Massabesic) first.

In total, this permit represents an increase in administrative and technical effort that likely will be difficult to impossible for any municipality to absorb, but particularly a small community such as Auburn. It is not necessarily the permit conditions themselves but rather the sheer volume of the impaired water bodies. According to EPA's website; New Hampshire ranks seventh in the nation in the number of impaired water bodies. New Hampshire also ranks second in the nation in the number of TMDL's with over 6,000. The state response to this is that most of those TMDL's (approx. 5,000) are for mercury, however, even if the mercury TMDL is taken off the list it still leaves 882 TMDL's which would still have New Hampshire in the top 15 states by number of TMDL's. Most of Auburn's outfalls discharge to impaired water bodies. The town cannot afford to tackle all of the outfalls simultaneously and meet the five year deadline spelled out in this draft permit.

The Town is in the process of having its Town Attorney review the representation that RSA 31:39 gives towns and cities the necessary authority to regulate chloride use on private properties with approved site plans. The Town respectfully disagrees with that assertion and feels adequate time needs to be built into the schedule to allow the New Hampshire Legislature to grant the necessary authority to affected communities if that is appropriate. New Hampshire is not a "home rule" state, as a result,

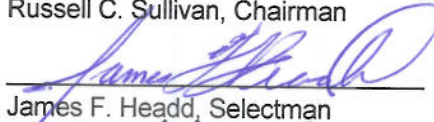
municipalities many only do what the Legislature has expressly authorized by state statutes. The Town also believes town by town compliance with chloride use will be disastrous to New Hampshire's business community, and perhaps would be accomplished much more effectively and efficiently at the state level.

Finally, **Section 2.3.7.d.iii** requires sweeping of uncurbed streets. This is not practical as the efficiency of a mechanical sweeper is greatly reduced in the absence of curbing. Of Auburn's approximately 80 miles of roads in town, approximately 15.5 miles is owned and maintained by the State of New Hampshire, and are not swept. Of the remaining 65 miles, approximately eight miles of road are Class VI roads. They are legally owned, but not maintained by the Town of Auburn and generally are gravel roads without curb and gutter. Of the remaining 56 miles of Town-owned roads, less than five miles has curb and gutter. And none of these account for private roads in developments that the Town has no legal responsibility or authority. At the present time, the Town of Auburn does not sweep any of its Town-owned and maintained roads. Estimates received approximately 18 months ago to sweep all of the Town's 56 miles of road once per year was approximately \$40,000. We are doubtful we would be able to secure funds for that purpose through the annual municipal budgeting process which requires voter approval.

Sincerely,



Russell C. Sullivan, Chairman



James F. Headd, Selectman



Paul M. Raiche, Selectman

AUBURN BOARD OF SELECTMEN

Cc: Vicki Quiram, Assistant Commissioner, NHDES
Jeff Andrews, NHDES



Selectmen

Shawn O'Neil
Chris Giordano
Annemarie Inman
Russell Harding
Michelle Cooper

Town of Danville



Town Clerk

Christine Tracy
Tax Collector
Kimberly T. Burnham

August 5, 2013

US EPA

ATTN: MR. NEWTON TEDDER
5 Post Office Square, Suite 100
Mail Code OEP06-1
Boston, MA 02109-3912

Dear Mr. Tedder:

The Town of Danville New Hampshire has concerns and comments regarding the 2013 Draft Small MS4 General Permit and have listed them below. This list of concerns was generated through many discussions with the Danville Board of Selectmen, the Danville Stormwater Department/Road Agent and our Stormwater Consultant (CEI), the Danville Conservation and Forestry Commissions and Planning Board, and our representatives to the Southeast Watershed Alliance.

The Town of Danville is a small rural community of 4,387 people in southeastern New Hampshire and a population of 2,890 in our urbanized area (UA) of the MS4. The town does not have public sewage. The Town of Danville has 7,070 acres of land; our green infrastructure is strongly supported by 3,451 acres of Open Space land with long term and permanent restrictions on development. The remaining land, due to our zoning and natural terrain features, is predominantly forested. This acreage provides for natural infiltration of stormwater into watershed areas.

We would appreciate the EPA reviewing our concerns and addressing these points with the level of importance that they were discussed in Danville and generated for your review. These concerns are based upon the fact that Danville is a small town and these initiatives would prove to be very costly for the Town to comply with.

Catchment investigations. Danville has a limited number of catch basins with closed drainage outlets all within 500 feet of the inlet. The main purpose of these catch basins are to decelerate the amount of stormwater flow directly into the watersheds and allow the flow to slowly drain through the natural flow areas. The potential of Danville having to analyze the System Vulnerability Factors will be limited due to the amount of outfalls that the town has. The catch basin cleaning sample testing that was done in 2009 under the 2003 requirements showed normal limits in the samples. Currently there are samplings being processed for 2013. The requirement to perform dry and wet weather investigations testing and sampling costs that

would have to be performed under the 2013 draft permitting would include additional investigations, re-evaluation of the outfalls and monitoring for dry and wet weather sample collections. This would greatly affect the town's budgeting by increasing costs of additional sampling than what is currently done along with testing time frames and what is tested for, especially if there are no observations of any type of illicit discharge parameters showing in the system. It is recommended that this requirement should be regulated by the local community rather than it just being a generalized requirement for all. The ranking of catchments should only be based upon screening factors as determined by the permittee, not regulated with sampling requirements but with review of the requirements. This process for communities would be time consuming and for those assisted by consultants increasingly costly. Currently, regulations for the smaller communities are more based on testing results of their catchment cleanings and when there are good results then testing is at a lesser level and most of the time they are reviewing their catchments during every heavy rain event. To make a general manhole inspection methodology based on storm drain network investigations as a general requirement is not favorable. Some of the MS4 communities do not have manholes at all in their communities, therefore this regulation should be more site specific and not a general requirement.

Additional mapping elements. The requirement to obtain a more developed and detailed mapping of our MS4 elements within 2 years of the permit would be an expensive undertaking for the town. The initial mapping was completed under the MS4-2003 and additional requirements and elements that are required under the new permit would impose a great financial burden to the towns. The new system mapping requirements, including the additional elements required for the maps and time frames requested, causes the smaller towns to expend immediate funds which are not easily or readily available to them due to the budgeting cycles, as well as currently allowable budget amounts that will increase to perform these additional requirements within the time frames requested. This needs to be taken into consideration when requiring times for all items to be completed. A considerable observation to be made are towns that do not have public sewage systems, only private septic systems which are governed by state laws. Also, many towns do not have curbed roadways and zoning requirements of 2 acre building lots.

Inventorying and ranking MS-4 owned property for BMP retrofits. The property the town owns varies from our town buildings to town forest areas and conservation land. The work that would need to be done to determine what needs to be accomplished under the permit could again run into funding issues. To accomplish the mapping to evaluate elevation/topography, underlying soils, expected depth to groundwater and relationship to wetlands would require the town hiring various consultants to accomplish all phases of this regulation especially when the time frame for accomplishing this is very limited.

Stormwater pollution prevention plans. The requirement to prepare SWPPP plans for all permittee owned or operated facilities where pollutants are exposed to stormwater is yet another costly item. To require a Town/City to prepare a SWPPP for all town owned properties is a costly item and the time frame to do this is very restrictive. These plan requirements are overly stringent than what the Federal regulation is currently. The town-owned buildings or facilities in some communities are spread over various parts of the town and would be extremely costly to develop each one. There are also towns with public buildings owned by the town but operated but under the control of a regional SAU and we question who the responsible party is to prepare these plans.

Street sweeping mandate in the spring. This requirement of uncurbed limited access highways to have to develop a street sweeping plan and/or do street sweeping on a yearly basis for our roadways that have no street curbing is an unrealistic request. Aside from the issue of what is the classification of a limited access highway, most roadways are not limited access highways. This requirement has the appearance of gathering nature's resources and disposing of them differently than what was intended. Danville has limited closed drainage and no street curbing. Of the closed drainage that the Town of Danville has, the inlets and outlets are all located within 500 feet, more or less, of each other. The idea of street sweeping or having to hire a street sweeper to sweep up leaves, pine needles, etc. seems excessive as Mother Nature composts them naturally. The Town of Danville uses a limited amount of sand during winter roadway maintenance, therefore avoiding any large amounts of sand flowing off the roadway onto the road edges. The Road Agent for the Town of Danville is also Green Snow Pro certified and is always looking at alternative winter road maintenance procedures. As part of our public education for the MS4-2003 permit the highway department has for the last 9 years hosted a town wide roadside clean up each spring where we ask the residents to clean up the roadsides of litter that has accumulated over the winter and leave the bags on the roadside for pickup by the Highway Department. The bags are available to residents during the year and residents are encouraged to pick up roadside trash, leave the bag and notify the town for pickup of the bag. Each year participation has continued to increase making the roadside cleanup a success throughout the year.

Water Quality Response Plan development. We respectfully pose the following three questions and request guidance: How is a water quality response plan created when the preliminary evaluation of discharges to impaired water and water testing results provided to you from NHDES for the Town of Danville are from 5 to 30 plus years old? How is the determination made as to the accuracy of these test results initially? Finally, based on the aged, potentially inaccurate tests results, location of the testing and criteria held at the time, how should baselines be determined?

Water quality response plans provide an interactive process for addressing discharges that have a potential to cause or contribute to impairments. Considering the pollutant available data on states listings of water quality data, many areas could be derived as incorrect or not current due to the aging of test results listed on NHDES water testing results. The process of addressing discharges for initial assessments including things like leaf litter seems rather ineffective as leaf litter is an example of Mother Nature whereby it composts itself to back to the ecosystem. Properly functioning healthy ecosystems will be damaged if we are required to meet baselines that have been set too high/low relative to normal background values. In our town, and throughout the state, the "impaired waters" list as currently structured creates exactly that situation. The magnitude of this request for a small town like Danville is overwhelming and seemingly needless.

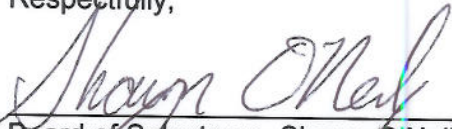
Water Quality Response Plan to address runoff to the Great Bay Estuary. The percentage of the town in the MS4 area just barely touches the Exeter River area which is part of the Great Bay Estuary. This portion of the Exeter River is the beginning which then flows into Fremont, then to Chester, back into Fremont and out to the seacoast area. It is the position of the Town of Danville that if the testing that has been done, or can be done, to determine that we are not the cause of any impairment we would not need a detailed plan to address this issue. Compliance for discharges into Estuary area/watershed/tributaries from Danville's MS-4 area in this watershed is minimal. Most of the Great Bay Estuary in Danville travels through forest and conservation land areas and does not border roadways or households.

Use of the State Stormwater Manual. Currently in the 2003 MS-4 General permit communities are required to develop their own Stormwater Management Plans and use them as guidelines and regulations of how we address our stormwater management practices based on our own rules, regulations and state laws. The Town requests guidance on why the EPA would require the use of the State Stormwater Manual as part of the regulatory mechanism.

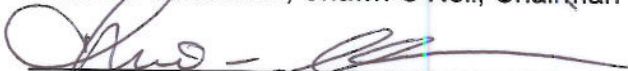
Please be advised that additional comments to the current draft 2013 Small MS-4 General permit will be included in a comment letter being prepared by Sheehan, Phinney, Bass & Green, PA on behalf of the New Hampshire Small MS-4 Coalition.

Thank you for your review of these comments regarding the 2013 Draft Small MS 4 General Permit and taking them into consideration when working on the final permit. It is our desire to work together, as well as with other small communities in implementing a viable solution to these items and continue meaningful discussions to arrive at a successful final permit.

Respectfully,



Board of Selectmen, Shawn O'Neil, Chairman

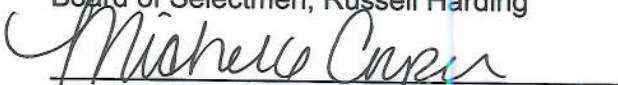


Board of Selectmen, Chris Giordano, Vice Chairman



Board of Selectmen, Annemarie Inman

Board of Selectmen, Russell Harding



Board of Selectmen, Michelle Cooper



Road Agent, Bruce Caillouette

CC: Vicki Quiram, Assistant Commissioner, NHDES
Jeff Andrews, NHDES
Nick Cristofori, Comprehensive Environmental Incorporated (CEI)

Received
8/15/2013

Mr. Newton Tedder
USEPA Five Post Office Square – Suite 100
Mail Code- OEP06-1
Boston, MA 02109-3912

RE: Response to draft MS4 permit

Dear Mr. Tedder,

August 9, 2013

Thank you for extending the period in which communities may comment on the draft MS4 Permit. The Town of Hampstead has several concerns as it relates to the abovementioned topic.

Street Sweeping

The Town of Hampstead has no curbs in town other than those on State-owned highways. I researched the topic of street sweeping. According to Roger C. Sutherland, P.E. (Senior Water Resource Engineer with AMEX Earth & Environmental in Tigard, Oregon.), in his article *Street Sweeping 101*, (from Stormwater – news Jan. – Feb. 2011), he wrote the following:

Barriers such as street curbs or New Jersey median barriers are known to have a significant effect on both the accumulation of “street dirt” and the ability of street cleaners to effectively pick up the accumulated material...So the focus of the (sic a) good street sweeping program should be on streets and roadways that are curbed or have other barriers like New Jersey barriers...

Under closing remarks, Mr. Sutherland wrote:

A great deal of controversy currently surrounds the question of how much of the pollution generally found in urban stormwater runoff can be reduced by street sweeping practices (Sutherland 2009b)...

In addition, conditions of the roadway play a factor with regard to how effective street sweeping is or is not.

Finally on this topic, under EPA's Nation Pollutant Discharge Elimination System (NPDES), **Street Sweepings Reuse Practices: Although sweeping may contain pollutants, federal and state regulation may allow the reuse of sweepings for ... road shoulders and other applications as long as the material is not a threat to surface waters...**

Illicit Discharges

The entire town of Hampstead is serviced by private septic systems. So what kind of illicit discharge would be discharging into a system that doesn't exist for the Town? I might have interpreted the requirement incorrectly and therefore in this instance the Town would need specific direction from EPA or an indication that the Town is exempt from this particular requirement.

As we discussed when we spoke over the phone, the towns that fall under the MS4 permit vary greatly in population, density, infrastructure, Stormwater knowledge and manpower. Therefore EPA would have to work hand-in-hand with the smaller communities so that those communities understand specifically what is required and how it differs from the urbanized communities.

Naturally occurring vs. man-made pollutants

PH levels in the Town's ponds may exceed the desired limits. How does the Town determine what is occurring naturally through "acid rain" with an increase in Nitrogen and Sulfur, and what could be the result of stormwater run-off, which, in and of itself would naturally carry a higher PH level because stormwater is rain.

Bacteria levels may also be elevated in areas where there are beaches. Beaches attract ducks because ducks comb the beach for food crumbs. How would the Town distinguish between bacteria from ducks or otherwise?

Benthic-Macroinvertebrate Bioassessments

The area of Kelly Brook is surrounded by conservation land and residential homes. The Town is built out by approximately 95%. For the residents who live near Kelly Brook – how are we going to limit the impervious surface? Not let the homeowner put up a storage shed or pave his or her driveway?

Salt (Chloride) vs. Safety

There is a fine line between reducing the amount of salt applied to the roads in the winter to such an extent that there is a public safety issue.

Endangered Species Act Requirements

The Town has no knowledge or experience with this. In the past, when the Town has requested funding through grants, federal and/or state agencies determined whether or not endangered species was an issue.

Finally, Cost for implementation

The Town had an outside agency provide an estimate for work that is needed. For year one of the permitting process, the cost would be approximately \$58,000 + and an additional \$52,000 + for years two through four.

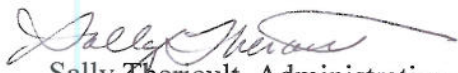
Shouldn't the EPA determine what the issues are, what is contributing to these issues and how the EPA can resolve the problem, instead of the Town doing this, particularly in light that the Town has neither the knowledge nor the skill. Further, it does not have the funds or manpower to accomplish all that the EPA is requiring?

What ramifications/penalties can be instituted by EPA or other agency should a Town not comply fully or at all with the permitting requirements, whether willfully or not? Who would be held responsible?

For budgeting purposes, this funding would have to be a new line-item in the budget or a warrant article. Should the town not support the new line-item or warrant at Town Meeting, no funds could be used for this purpose for 2014. What happens then?

Thank you for getting back to me regarding the concerns listed above.

Sincerely,


Sally Theriault, Administrative Assistant

Town of Hampton



Received
8/16/2013
nwt

August 12, 2013

US Environmental Protection Agency
5 Post Office Square – Suite 100
Mail Code –OEPO6-4
Boston, Massachusetts 02109-3912
Attn: Mr. Newton Tedder

Ref: MS4 Draft Permit Comments

Dear Mr. Tedder:

The Town of Hampton would like the Environmental Protection Agency to consider the following comments concerning the 2013 Draft MS4 Stormwater Permit. Our comments follow the order of the items in your Draft Permit to aid you and others in the review of our comments.

The Town is also part of a MS4 Coalition. Accordingly, additional comments will be submitted on behalf of the Town of Hampton from Sheehan, Phinney, Bass + Green, PA.

1.9.1 Certify Eligibility with regard to Federal Endangered and Threatened Species and Critical Habitat Protection.

The Town is neither prepared nor qualified to certify its own compliance with endangered/threatened species and /or critical habitat regulations. This type of certification requires educated and trained people to do the work. Furthermore, we are of the opinion that the responsibility of ensuring that permit requirements do not conflict with the Endangered Species Act (ESA) rests solely with the EPA. The Town cannot relieve the EPA of its responsibility under the ESA by having it included within this draft permit. We herewith request that you remove it from the permit.

Waiver Granted to Hampton Falls

We note for the record that the EPA granted the Town of Hampton Falls a waiver from the MS4 requirements on April 30, 2013. The Taylor River begins in Hampton Falls and flows along our common town boundary until the river becomes the Hampton and Seabrook common line. It appears from our review of the 2010 TMDL Report prepared by the State that the two (2) locations tested on the Taylor River are as follows.

NHEST600031003-02 where the Taylor River passes under NH Route 1

NHEST600031003-03 just southeast of where the river passed under the former Boston & Maine railroad trestle. The former rail bed is now owned by the State of NH Department of Transportation.

Our point is that both of these locations are strongly influenced by the land that lies within the Hampton Falls boundary. We expect to take additional water samples further up the river to determine what effect, if any, the flow from other areas has on these locations.

2.2.1.e Hampton is listed as a Town with a TMDL for bacteria.

The Town is listed as having waters in our community impaired by bacteria in Attachment F of the Draft permit. It is our understanding that this requirement is based upon the 2010 TMDL study and report that the NHDES submitted to your office. Since the drafting of the permit the State has issued the 2012 TMDL study in its final format and as a result Hampton is no longer listed as having water bodies impaired due to bacteria. We also take issue with how Hampton was listed in 2010 and the benchmark for that TMDL. The State of NH Department of Environmental Services used a very small data set to determine what the State wide limit for bacteria should be. We feel that the State should collect more samples from around the state to determine the TMDL. If the State had known that a whole Federal program was going to be based on the data in the TMDL they may have taken the time to collect many samples over several years.

At this time we request that Hampton be dropped from having to test for bacteria because the State 2012 TMDL listing no longer shows our water bodies impaired for bacteria. A second reason for dropping this requirement as to Hampton is that the headwaters of the Taylor River lie totally within the Town of Hampton Falls, which has been granted a waiver from your office. The issue is further complicated in that the Taylor River is the boundary between three (3) Towns. Any efforts to clean boundary waters would require the Towns of Seabrook, Hampton Falls and Hampton to develop rules and ordinances to address any response.

Appendix F of the 2013 Draft MS4 Permit (73 pp.)

We would like to call your attention to page 4 of this attachment. In section 1 on this page it is stated that "Water Quality Goal of TMDL" is "a geometric mean for fecal coliform of less than 14 MPN/100 milliliters and a 90th percentile of less than 43 MPN/ 100 milliliters as determined using National Shellfish Program (NSSP) protocols". (MPN = Most Probable Number).

In comparison, the 2010 Consolidated Assessment and Listing Methodology (CALM) report prepared by the State and adopted by the EPA states that the limits for Enterococcus is a geometric mean of 35 cts\ 100 mill-liters and a single sample maximum of 104 cts\ 100 mill-liters.

There appears to be a difference in these standards and we would like to know which standard controls. If we are forced to meet the NSSP limits this may not be possible because we do not control all of the land draining into the Taylor River and its headwaters.

Taylor River Watershed Issues

The Town is very familiar with the water quality of the Taylor River and potential causes of pollution and contamination in the watershed. Since 2006 the Town has been working with the State Department of Transportation on removal of a dam on the north side of Interstate 95. At issue is the 77,000 cu. yds. of silt behind the dam and the chemicals held within this silt, such as the pesticide DDT and its breakdown products, DDE and DDD. Please refer to the attached external memorandum prepared by ExPonent dated December 10, 2009. The second issue is that the pond held behind the dam has a low oxygen count at its lower depths. While we have not specifically tested this water body for bacteria we assume that what is occurring in this section of the river has a direct impact upon the bacteria results the State DES obtained and reported in the 2010 TMDL listing.

We also suspect that along with the DDT that possibly came from the apple orchards in the abutting community that bacteria also comes into the water body because that community does not have a municipal sewer system. It is possible that older failing septic systems in the land area along the upper tributary of the Taylor River contribute to the bacteria. Without further testing and analysis the effect of the residential development along the river cannot be determined with any certainty.

As you can see the issues and our concern for the Taylor River go far beyond bacteria in the lower section of the river. We request that you allow the Town the time to work out a solution for this dam with the State Departments of Transportation, Environmental Services, Dam Bureau, Fish and Game and US Coast Guard. These issues are complex and take time.

Designated Uses as Listed in Appendix F of the 2013 Draft MS4 Permit – Table F-1

We noted in this table five (5) locations of testing with three (3) of these exceeding the single sample limit for fecal coliform and therefore requiring the development of a better management practices (BMP) to achieve [fecal] bacteria reductions. What we would like to call to your attention is the designated use label applied to the Hampton River Marina SZ which is currently listed as a primary contact recreation (PCR) based on the assessment that it is used for swimming. In our opinion the marina's primary use is for boating and therefore should be listed as a secondary contact recreation SCR (boating).

This is important at this time because the designation will determine the type of bacteria we need to test for and the allowable limits in the future. Our second reason for pointing this out is that the stated goal on page 4 of appendix F is "to remove all human sources of bacteria to the estuary to the extent practicable".

At this time we request that we be dropped from having to test for bacteria because the State 2012 TMDL listing no longer shows our water bodies impaired for bacteria.

2.3.4.8.d Outfall & Interconnection Screening and Sampling

The Town of Hampton is a seaside community that is strongly influenced and controlled by the weather. In recent years the residents of the Town have experienced more frequent flooding in many areas of the Town. Several of our drainage systems have drainage gates on the end of them to prevent seawater from entering the drainage systems during high tides. When a rain or snow event occurs during a high tide the low lying areas flood because the high tide will not permit the tide gates to open. In many cases the flooding is only partially alleviated in the short time period between high tides.

When this occurs the water in the pipes and catch basins will be contained anywhere from 24 hours to several days. We suspect that during this time period the bacteria in the drainage system grow to exceed TDML limits. This means that we may never achieve a low acceptable bacteria count in the tidal controlled drainage systems.

Therefore, we would propose that the Town, working in concert with the State, be permitted to collect multiple samples over a two (2) year period from the tide gate controlled systems. This would allow us to determine if bacteria in these systems is an issue and to what level. We would also propose that the tide controlled structures are unique and that if we are required to test for bacteria that a separate TMDL be established. We also feel that this is an ongoing program and that the TMDL level should be revisited after three (3) more years and before the MS4 permit is renewed in the future.

Given the recent release of the 2012 TMDL's we would ask that no testing be required within this permit until such time as a proper set of TMDL's has been established.

2.3.4.9.c.i IDDE Program Implementation Goals and Milestones

This section states that 80% of all of our problem catchments need to be sampled and tested within three (3) years of the permit date and 100% within five (5) years. We have determined that all of our catchments fall into the problem designation because of a note in Appendix F, page 5. This note reads as follows. "Catchments draining to any waterbody with an approved bacteria TMDL shall be designated either Problem Catchments or HIGH priority in implementation of the IDDE program". The five (5) testing sites listed in table F-1 of Appendix F are listed as impaired for bacteria therefore all of our catchments are Problem Catchments. Given the recent release of the 2012 TMDL's we now request that no testing be required for bacteria and also that all of our catchments are no longer classified as Problem Catchments.

Our issue with this section of the draft permit is the time it will take to locate, catalog, install signs and test each one of our outfalls and catchments. Our first look at the number of outfalls we have is approximately 160. If we are to look at 80% of these within three (3) years and have to install signs (\$100 each) and test each location (\$100 to \$150 each) it will cost the Town between \$8500 to \$10,500 per year plus labor. At the same time we are trying to install all of the outfall signs we are also trying to meet a 2017 deadline to have all street and traffic signs upgraded to meet the Federal DOT guidelines.

In discussions with the State and other members of our local Stormwater Coalition it is the collective opinion that the amount of work you are asking us to do should be spaced out over 10 to 20 years. This is due to the amount of funding it will take and the amount of time. We also feel that if the source of bacteria in the stormwater could be due to leaking sewage collection pipes (exfiltration). If this is the

case then it may take more time than allowed under the permit to replace those older sewer pipes that may contribute to a non-point source of bacteria.

Waiver Request

The Town of Hampton herewith requests a waiver from the MS4 program as a whole because of the recent release of the 2012 TMDL listing. If a major reason for including the Town in this program was the basis that our waters were impaired, then the new TMDL listing excludes us. It is apparent to us in the community that the process of determining TMDL's and thus the need to the MS4 program is flawed and therefore should be scrapped.

The EPA and the State DES need to work together better to determine what is impaired water and what is just a historical background element. Case in point would be to determine what the background level for arsenic is when our whole State rests on bedrock containing arsenic. If we cannot agree on arsenic then the residents of our State and Town wonder if we really can differentiate between in bacteria levels caused by humans and those resulting from wildlife.

Summary

In summary it is our collective opinion that the scope of the draft permit is too wide and too aggressive. We do agree that the waters of the State need to be kept clean and that our physical health and economic well-being are directly tied to these waters. We here in Hampton are more sensitive to this than some of our neighbors because we see many people come to the beach and harbor each year to enjoy our shared resources. In the same respect, with this many people coming into the Town our ability to handle one more federal program is pushing us to the edge. We already sweep the sidewalk along the beach each day, maintain expensive vacuum and jetting trucks for cleaning basins and pipes and allocate staff to these tasks on a daily basis. This draft permit seeks to take stormwater management, cleaning and reporting to a whole new level that would burden the Town to the same extent as our efforts to manage wastewater.

We would appreciate being able to participate in a regional discussion that has stormwater being monitored, cleaned and reported based upon a watershed rather than a population density level from the census. Many agencies have reported that the increase in stormwater runoff is caused by the increase in impervious areas within each watershed. It would then be logical to determine which communities need to be included in the program by the percentage of impervious areas instead of population. The technology to accomplish this exists with the use of satellite imagery to determine water quality, crop growth, nesting bird densities and other data. In our opinion it was a flawed decision to determine which communities need to participate in the MS4 program based upon census data instead of a true indicator such as impervious areas. Currently FEMA is using better technology and data to produce new flood maps. They have used historical flood data, two (2) foot interval digital maps and improvements in analysis to achieve this. Provisions need to be made so that the rules under the permit can change as the technology improves.

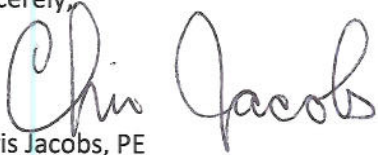
We also feel that it is an error to not have testing, analysis and remediation measures focused on the water body boundaries rather than using artificial, political boundary lines as a default. It would seem prudent to request that communities adjacent to a common water body have the same group of

measures to more effectively deal with a problem and obtain an improvement. This would result in some communities having a smaller area in an MS4 and other communities not being released from the program without just cause.

We look forward to having you review our comments and work with us to write a permit that takes into consideration the challenges and needs of the residents of the Town of Hampton.

Please feel free to contact me at 926-3202 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Chris Jacobs".


Chris Jacobs, PE
Deputy Director of Public Works

A handwritten signature in cursive script that reads "Frederick Welch".


Frederick Welch
Hampton Town Manager

Enc. ExPonent memo dated December 10, 2009

EXTERNAL MEMORANDUM

To: E. Tupper Kinder, Esquire


FROM: Pravi Shrestha
CC: Charles Menzie
DATE: December 10, 2009
PROJECT: 0906488.000 02F1
SUBJECT: Preliminary Review of Sediment Management Plan


Susan B. Kane Driscoll

Introduction

As requested by E. Tupper Kinder, Esquire, on behalf of the Town of Hampton, NH, Exponent prepared this memorandum summarizing our preliminary review of *Appendix D: Taylor River – Sediment Management Plan* of the *Final Draft Feasibility Study* prepared by The Louis Berger Group in association with GEI Consultants (Louis Berger 2009). The Feasibility Study evaluated different alternatives for replacing or removing the Taylor Pond Dam, which is located in Hampton Falls and Hampton, New Hampshire. The Sediment Management Plan evaluated three alternatives in terms of management of the sediments that have accumulated behind Taylor River Pond Dam, with the intent of reducing the potential for impacts to the downstream environment and the ecosystem. This review represents the results of Exponent's preliminary review of the Sediment Management Plan. The three alternatives evaluated in the Feasibility Study were:

- Alternative A – No Action
- Alternative B – Remove the existing I-95 bridge, the existing spillway/fishway, and the existing emergency spillway, and replace with a new I-95 bridge and spillway/fishway
- Alternative C – Remove the existing I-95 bridge, existing spillway/fishway, and existing emergency spillway, and replace with a new I-95 bridge.

The scope of work calls for Exponent to evaluate the technical considerations and approaches inherent in the sediment management plan with the objective of 1) identifying any deficiencies in the various sediment management approaches with respect to mobilization and transport of sediments in the river, pond, and downstream waters, and 2) providing recommendations for additional analysis or evaluation, if required.

In the text that follows, reference is made to the Taylor River system, which includes the Rice Dam impoundment, Taylor River, Taylor River impoundment, and downstream of Taylor River impoundment.

The key findings of our review are summarized as follows:

- The spatial extent of sediment contamination and sediment toxicity in Taylor River Pond is not adequately characterized for purposes of delineating the area and volume of material to be dredged (excavated) indicated in Alternatives B and C of the sediment management plan.
- The U.S. Army Corps of Engineers' River Analysis System (HEC-RAS model) does not adequately characterize the velocities in the system for purposes of assessing sediment mobility and subsequent transport.
- The potential mobility of sediments in the Taylor River system is not adequately addressed in terms of a physics-based approach to incipient motion of sediment particles. Incipient motion (initiation of motion) refers to the condition when the bed sediment particles will begin to move, i.e., when the bed shear stress induced by flow exceeds that required to move the particles.
- No attempt was made to quantify sediment transport in the Taylor River system with respect to spatial and temporal distribution of sediments resulting from the combined action of freshwater and tidal flows for each of the three alternatives. As a result, the potential impacts on the aquatic environment and ecosystem could not be addressed.

Based on our review, it is recommended that a numerical model of hydrodynamics and sediment transport be developed for the Taylor River system, to quantify sediment transport in the system resulting from implementation of the three alternatives.

Background

The Taylor River Pond is an approximately 47.5-acre impoundment created by an earthen embankment located at the crossing of Taylor River and Interstate 95 (I-95). The total watershed area upstream of the dam is about 7,075 acres. Tributaries to Taylor River include Grapevine Run, Clay Brook, Old River, and Ash Brook. Taylor River flows out of the pond

through a primary spillway structure. A fishway installed on the primary spillway provides for fish passage. Excess flows in the Taylor River are discharged downstream under the I-95 bridge through a sheet pile emergency spillway and associated pipe-arch culvert. The dam currently delineates the upstream limit of tidal influence.

Construction of the dam resulted in accumulation of organic-rich fine-grained sediments in the impoundment. The volume of accumulated sediments was estimated by Louis Berger (2009) to be 77,000 yd³. Chemicals associated with the sediments exceed certain screening-level sediment guidelines for both fresh water and marine waters. Chemicals of particular concern include the pesticide DDT, and its breakdown products, DDE and DDD. Because the sediments exceed screening-level guidelines, the potential for adverse impacts to sediment-dwelling invertebrates cannot be ruled out and sediment toxicity tests were conducted. Two of the three sediment samples tested showed significant toxicity in comparison to a laboratory control: one sample collected from the lower section of the Taylor River Pond near the primary spillway (sample location TR-S6) and one sample at an upstream location near the Rice Dam impoundment (sample location TR-S11).

As part of the feasibility study performed by Louis Berger (2009), a sediment management plan was prepared to address sediment management measures to reduce the potential mobilization and transport of contaminated sediments from the pond to downstream waters resulting from implementation of three alternatives for replacing the I-95 bridge, and removing or replacing the primary spillway, fishway, and emergency spillway/culvert. Descriptions of the three alternatives, with respect to the sediment management plan, are provided below. Louis Berger (2009) indicates that the sediment management plan would need to be refined upon selection of a preferred alternative.

- **Alternative A: No action**—This alternative is intended to serve as the base case for comparison with the other alternatives. The accumulation of sediments in the pond and their potential transport downstream would be representative of existing conditions. If the dam breached and/or the spillways failed, sediments in the pond could be mobilized and transported downstream.
- **Alternative B: Replacement of I-95 bridge and new spillway/fishway**—In this alternative, the existing I-95 bridge, primary spillway, and emergency spillway/culvert would be removed. This would be replaced with a new 70-ft long (abutment-to-abutment) concrete bridge, a 50-ft wide spillway, and a new Denil fishway. For this alternative, the sediment management plan recommends removal of approximately 1,200 yd³ of sediment (including a 35 percent overexcavation) from a small area in front of the proposed bridge location on the upstream side. The excavation area is 16,000 ft² and the depth of excavation is 1.5 ft. The removed sediment would be disposed of offsite.

- **Alternative C: I-95 bridge replacement without spillway**—In this alternative, the existing I-95 bridge, primary spillway, and emergency spillway/culvert would be removed. This would be replaced with a new concrete bridge similar to the one discussed in Alternative B. There would be no provision of a spillway/fishway. For this alternative, the sediment management plan recommends removal of approximately 7,000 yd³ of sediment (including a 25 percent overexcavation). The excavation area is 100,000 ft² and the depth of excavation is 1.5 ft. Removed sediment would be disposed of offsite. The sediment management plan also includes measures to stabilize the exposed tidal marsh, specifically along the edges of the tidal creek to reduce sediment erosion at these locations.

Potential Issues with Proposed Sediment Management Plan

Based on our current understanding of the sediment management plan, we have identified a number of issues that need to be addressed with regard to the mobilization and subsequent transport of contaminated sediments from Rice Dam impoundment, Taylor River, Taylor River impoundment, and downstream of Taylor River impoundment (hereinafter referred to as the Taylor River system).

The spatial extent of sediment contamination in Taylor River Pond is not adequately characterized. The sediment management plan for Alternatives B and C assumes that only a small volume of sediments (approximately 1,200 yd³ for Alternative B and 7,000 yd³ for Alternative C) would be dredged in the vicinity of the location where the new primary spillway structure would be constructed for Alternative B. This represents about 1.6 percent (Alternative B) and 9.1 percent (Alternative C) of the total volume (77,000 yd³) of sediments accumulated in the impoundment since the construction of Taylor Pond Dam. The sediment quality sampling results in Table 8 of the feasibility study show that the contaminant concentrations in sediments just upstream of the primary spillway (TR-S5) are relatively higher than further upstream or downstream. However, contaminant concentrations at upstream locations are also higher than downstream of the impoundment (TR-S4) for some of the contaminants. As noted above, two sediment samples tested showed significant toxicity: one sample collected from the lower section of the Taylor River Pond near the primary spillway (sample location TR-S6) and one sample at an upstream location near the Rice Dam impoundment (sample location TR-S11). Therefore, potential migration of sediment and associated contaminants from these areas to downstream locations could result in an increase in concentration in the downstream sediment. Sediment-associated contaminants were assessed at only a limited number of sampling locations. There were four sampling locations upstream of the I-95 bridge location and one sampling location downstream. It is not clear what the justification was to dredge (excavate) only a limited area and corresponding volume of sediment for each of the two Alternatives B and C. Additional sampling efforts would provide a more detailed spatial distribution of the concentration of contaminants in the bed sediments that would serve to guide the selection of the area and volume of dredging (excavation).

The U.S. Army Corps of Engineers' River Analysis System (HEC-RAS model) does not adequately characterize the velocities in the system for purposes of assessing sediment mobility and subsequent transport. The feasibility study describes the application of the HEC-RAS model to simulate water surface elevations and velocities for Alternatives B and C. Approximately 6,900 ft of the Taylor River were modeled, encompassing about 6,500 ft upstream of the existing I-95 bridge and about 400 ft downstream of the bridge. The HEC-RAS model simulations represented the 2-, 10-, 50- and 100-year steady-state peak flows in the river. For Alternative B, 22 cross-sections and two bridges (i.e., the Towle Road bridge and proposed I-95 bridge) were modeled. The 100-year flow velocities at 11 of these cross-sections exceeded 1 ft per second (fps). This included an approximate 350-ft reach upstream of the proposed bridge location. For Alternative C, 21 cross-sections and two bridges (i.e., the Towle Road bridge and proposed I-95 bridge) were modeled. The 100-year flow velocities at 15 of these cross-sections exceeded 1 fps. Thus, for both alternatives, the velocities at many of the modeled sections upstream and downstream of the proposed I-95 bridge for the 100-year flow are sufficiently large to mobilize bed sediments in that area.

A number of issues with respect to the HEC-RAS model were identified, as follows:

- The HEC-RAS model is a one-dimensional model. The velocities derived from the model are representative of the average velocities at specific cross sections. The model does not represent the spatial variation across the section, and hence cannot be used to assess the mobility of bed sediments along a given transect.
- The HEC-RAS model for Alternative B appears to have been applied with the flow conveyance blocked up to the high monthly tide elevation of 7.21 ft at the new spillway. With this configuration, the velocity at each section upstream of the impoundment is representative of the average velocity in that section, whereas the velocity at each section downstream of the impoundment does not incorporate tidal velocities at that section. Thus, velocities from flooding and ebbing of the tide are not realistically reflected in the HEC-RAS model results at cross-sections downstream of the proposed I-95 bridge.
- The HEC-RAS model for Alternative C appears to have been applied with the flow conveyance blocked up to the high monthly tide elevation of 7.21 ft for the entire reach (i.e., upstream and downstream of the impoundment). With this configuration, the velocity at all cross-sections does not include the effect of tidal velocities, and hence are not representative of the system for making any inference with respect to sediment mobility.

The potential mobility of sediments in the Taylor River system is not adequately addressed in terms of a physics-based approach to incipient motion of sediment particles. As indicated in the feasibility study, the sediments in the Taylor River system are organic-rich fine-grained sediments contaminated with pesticides, metals, and PAHs. Table 6 of the feasibility study indicates fine-grained sediments in the silt-clay size range are greater than 20 percent, and

the total organic carbon (TOC) concentrations are about 5 percent, 4–8 percent, and 1.5 percent, respectively, in Rice Dam impoundment, Taylor River pond, and downstream of Taylor River pond. The mobility of the sediments is a function of flow-induced bed shear stresses and a critical shear stress for incipient motion. As noted earlier, incipient motion (initiation of motion) refers to the condition when the bed sediment particles will begin to move, i.e., when the bed shear stress induced by flow exceeds that required to move the particles.

Exponent identified a number of issues with respect to sediment mobility, as follows:

- The spatial extent of sampling for grain size distribution measurements appears to be inadequate. As indicated in Table 6 of the feasibility study, only ten locations were sampled, two upstream of Taylor River pond, seven within the Taylor Pond dam impoundment, and two downstream of the impoundment. Additional grain size measurements would be useful to assess the type of sediments adjacent to the shoreline. This information would be important for any sediment transport study.
- The feasibility study does not address whether the sediments can be characterized as cohesive or noncohesive. This is important because the physical processes influencing their transport are different (see Appendix A for details).
- Critical shear stress for incipient motion was not addressed in the feasibility study. General statements regarding sediment mobility were made based on velocities obtained from the HEC-RAS model, but there is no realistic representation of the potential for sediment mobilization in the system.
- The feasibility study did not address the concept of flow-induced bed shear stresses as the driving mechanism to assess sediment mobility.

No attempt was made to quantify sediment transport in the Taylor River system. The feasibility study makes only generalized statements regarding potential sediment transport in the system. Specific examples include:

(For Alternative B): velocities 200 ft upstream of the new spillway dam (Alternative B) during a 100-year storm are very low (0.5 ft/sec) which would not be sufficient to erode the sediment in the pond. As water is funneled toward the new spillway, velocities increase.

(For Alternative C): Tidal flows would likely result in erosion of those parts of the former tidal creek channel that were excavated. It is reasonable to assume that, over time, the pre-dam channel would largely be scoured out naturally by tidal and freshwater flows.

Adequately characterizing the transport of sediments from the impoundment to downstream waters would require development of a numerical model for hydrodynamic and sediment transport. Freshwater flows during storm events (e.g., May 14–15, 2006, storm event) or the 100-year flow in Taylor River combined with tides would provide a realistic representation of flows in the system. The resulting flow velocities will serve as the driver for the sediment transport model.

- For Alternative A, the freshwater flows will influence sediment movement upstream of the impoundment resulting in sediment outflow over the existing primary and emergency spillway structures. The tidal flows are limited to the Taylor River and Estuary downstream of the spillway structures. Hence, tidal flows downstream of the impoundment will influence how these sediments are mixed and transported in the estuary.
- For Alternative B, the forcing functions for sediment mobilization and transport are similar to Alternative A, except that the volume of sediment outflow over the new spillway structure could increase, given the extended length of the spillway/fishway at the I-95 bridge opening. Tidal flows downstream of the impoundment will influence how these sediments are mixed and transported in the estuary.
- For Alternative C, both the freshwater inflows and the tidal flows will influence the sediment movement in the system. The combination of high freshwater flows with ebb tides will likely be the condition where maximum amounts of sediment are mobilized and transported out from the impoundment. The absence of any spillway structure at the new I-95 bridge crossing could scour out the sediments upstream of the impoundment. Sediments from the reaches downstream of the bridge location could also be transported and mixed with the pond sediments. Furthermore, the intrusion of saline water into the Taylor Pond impoundment will change the settling behavior of cohesive sediment flocs (aggregates) because saline water enhances flocculation (aggregation).

Recommendations

To realistically quantify sediment transport in the system resulting from implementation of the three alternatives, it is recommended that a two- or three-dimensional numerical model of hydrodynamics and sediment transport be developed for the Taylor River system. A multi-dimensional modeling framework is necessary to account for spatial variability of current velocities and sediments in the system. A brief description of the model, data requirements and availability, and proposed simulations for the three alternatives is provided below.

Hydrodynamic and Sediment Transport Numerical Model

The model will be composed of sub-models for hydrodynamics and sediment transport. The sub-models will be coupled together such that output from the hydrodynamic model will serve as input to the sediment transport model. The model domain will consist of Rice Pond impoundment, Taylor River Pond, and the downstream Taylor River Estuary. Data requirements for the hydrodynamic model will include current bathymetry, freshwater inflows, characterization of the bottom roughness, and tidal elevations at the downstream boundary. If winds are a factor in driving circulation, then meteorological data on wind speed and direction can be input to the model. Output from the hydrodynamic model will include the spatial and temporal distributions of water surface elevations, velocities, circulation patterns, and mixing. The hydrodynamic model would need to be calibrated to water surface elevations and velocity measurements at selected locations.

The results of the hydrodynamic model will serve as input to the sediment transport model. The sediment transport model can be set up to simulate either cohesive sediments or noncohesive sediments or both, depending upon the sediment characteristics at the site. Data requirements for the sediment transport model include sediment loading from freshwater inflows, sediment bed properties such as density, erodibility (if the sediments are cohesive), grain size distributions, and suspended sediment characteristics such as settling velocity. Output from the sediment transport model will include suspended sediment concentrations, mass of sediment eroded/deposited and subsequent changes in bed elevations throughout the model domain. The sediment transport model would need to be calibrated for total suspended sediment (TSS) concentrations at one or more selected locations.

Data Requirements and Availability

The following data will be required to support model development and application. It is anticipated that some of the data are already available with the New Hampshire Department of Environmental Services (NHDES), the New Hampshire Department of Transportation, and other agencies or local governments.

Hydrodynamics

- Bathymetric data for the Taylor River system including the Rice Dam impoundment, Taylor River, Taylor River impoundment, and Taylor River Estuary. Bathymetry survey data for Taylor River Pond gathered by HydroTerra from October 6 to 14, 2006, can be used as existing conditions bathymetry. The bathymetry of the Taylor River Estuary may be available from National Oceanic and Atmospheric Administration (NOAA).
- Freshwater flows as a function of time in the Taylor River and tributaries (e.g., Grapevine Run, Clay Brook, Old River, and Ash Brook) can be estimated from hydrologic modeling or from drainage-area proration of gauged flows. The highest flows in the system are likely to mobilize the

maximum sediment, thus estimates of the May 14–15, 2006, storm event or the 100-year flows would likely represent the worst-case scenario.

- Tidal elevations at the downstream boundary of the model can be obtained from NOAA records of tides at Hampton Harbor. Additional tide elevations at another location will provide data for calibrating the hydrodynamic model.
- Meteorological data (wind speed and direction) can be obtained from NOAA and/or from nearby airports.
- Bottom roughness is a calibration parameter used in the hydrodynamic model. It is anticipated that this parameter will be varied to account for marsh vegetation and the presence of coarse-grained sediments.

Sediment Transport

- Sediment loading (i.e., TSS concentrations) in the freshwater inflows can be estimated from nearby United States Geological Survey (USGS) gauged watersheds.
- Sediment bed properties such as density and grain size distributions can be obtained from field sampling efforts performed by Louis Berger (2009). It is anticipated that these data will be supplemented by additional available data or from future sampling programs so that the Taylor River system is adequately represented. The grain size distribution data will be used to characterize the bed sediments in the Taylor River system as cohesive or noncohesive. Based on our review of the limited grain size distribution data described in the feasibility study, it appears that the model can be setup as a cohesive sediment model.
- The settling velocity and bed sediment erodibility are key parameters influencing cohesive sediment transport. Laboratory and field experiments can be carried out to determine whether these parameters or literature values can be used. In either case, simulations should include a sensitivity analysis of these parameters to develop confidence in the model.
- TSS data at selected locations in the Taylor River system will be used to calibrate the sediment transport model.

Modeling to Support Evaluation of Alternatives

Model simulations to evaluate each of the three alternatives are described below.

Evaluation of Alternative A

The model domain for Alternative A will consist of two segments – one upstream of Taylor Pond dam and one downstream in the Taylor River Estuary. The existing primary spillway/fishway and emergency spillway/culvert will be assumed to be in place. The model will be first applied to the upstream segment. Model results of sediment inflow over the spillway structures will serve as input to the downstream segment model. Various freshwater inflow scenarios can be simulated (e.g., hydrograph of the 100-year flow; hydrograph of the May 14–15, 2006, storm event). Downstream boundary conditions to the model will be represented by actual tidal elevations. The results of this evaluation will serve as the base case conditions that can be compared to results from Alternatives B and C. In addition, this model could also be used to simulate the failure of the existing spillway structures. The resulting sediment deposition/erosion and bed elevation changes will be compared to the base case.

Evaluation of Alternative B

The model domain for Alternative B will consist of two segments, similar to Alternative A. The new bridge opening and new spillway/fishway will be assumed to be in place. Model simulations will be performed with the same boundary conditions and model parameters as described for Alternative A. Two scenarios are anticipated: 1) conditions that reflect bathymetric changes as a result of proposed construction of the new I-95 bridge and new spillway/fishway, and 2) conditions that reflect bed profile changes resulting from dredging (excavation) upstream of the impoundment as described in the sediment management plan for Alternative B. The second scenario can be fine-tuned with respect to the area and volume of excavation based on the results of the first scenario. The results of the above simulations will be compared to those from Alternative A to assess the change in sediment distribution patterns and the total mass of sediment transported from the impoundment to downstream waters.

Evaluation of Alternative C

The model domain for Alternative C will consist of one complete segment, because the tides are assumed to move into and out of the impoundment. Model simulations will be performed with the same boundary conditions and model parameters as described for Alternative A. Two scenarios are anticipated: 1) conditions that reflect bathymetric changes as a result of proposed construction of the new I-95 bridge, and 2) conditions that reflect bed profile changes resulting from dredging (excavation) upstream of the impoundment as described in the sediment management plan for Alternative C. The second scenario can be fine-tuned with respect to the area and volume of excavation based on the results of the first scenario. The results of the above simulations will be compared to those from Alternatives A and B to assess the change in sediment distribution patterns and the total mass of sediment transported from the impoundment to downstream waters.

Evaluation of the above alternatives should include a sensitivity analysis of the key model parameters such as the bottom roughness, and parameters for settling velocity and bed sediment

erodibility. Once a model is developed and calibrated, the model can be used to evaluate other alternatives, as needed.

References

Louis Berger. 2009. Final draft feasibility study (13408B) Interstate 95 bridge over the Taylor River Pond Dam (NHDES No. 106.08/09), Hampton Falls, Hampton, NH. Prepared for New Hampshire Department of Transportation, Concord, NH. The Louis Berger Group, Inc., Manchester, NH, in association with GEI Consultants, Inc., Woburn, MA.

Appendix A

Sediment Transport Dynamics

A synopsis of sediment transport dynamics for cohesive and noncohesive sediments appears below.

Figure A-1 shows a schematic of the processes influencing sediment transport. Sediments can be cohesive or noncohesive. Cohesive sediments consist primarily of clay-sized ($< 2 \mu\text{m}$) and silt-sized ($< 75 \mu\text{m}$) particles, mixed with organic matter, and sometimes, quantities of very fine sand. Noncohesive sediments are primarily sand-and gravel-sized material ($> 75 \mu\text{m}$).

The principal processes influencing cohesive sediments are advection, dispersion, aggregation, settling, deposition, consolidation, and resuspension. Aggregation is a function of cohesion and collision. Cohesion is the predominance of attractive forces over repulsive forces such that particles in close proximity can bind together to form flocs (aggregates). Collision of cohesive sediments is caused by Brownian motion, internal shear, and differential settling. Sediments settle through the water column and approach the bed. The deposition of cohesive sediments is a function of the settling velocity, the sediment concentration, and a probability of deposition. The settling velocity is a function of the concentration and the internal shear rate. The settling velocity, therefore, implicitly accounts for the mechanism of aggregation. The probability of deposition implies that sediments approaching the bed may or may not stick to the bed and reflects, in an implicit way, the effect of turbulence near the bed. Once sediments deposit to the bed, they consolidate such that the dry density increases with depth of sediment. If the shear stress caused by the flow is greater than the critical shear stress for resuspension, sediments are entrained into the water column. With depth, because of the increase in strength, the resuspension decreases. Sediment resuspension depends upon the bed shear stress induced by the flow and the resistance of the bed to erosion. Resistance to erosion depends upon the sediment type and mineralogy, pore and eroding fluid concentrations, the time history of deposition (i.e., whether the sediments are recently deposited, partially consolidated, or part of a more dense bed), and chemical and biological processes.

For noncohesive sediments, particles settle discreetly with settling velocities that depend upon the grain size. Deposition of noncohesive sediments is based on the settling velocity and the near-bed concentration. After depositing to the bed, particles may be transported in suspension or as bed-load, depending upon the relationship between the bed shear velocity, the critical shear velocity for incipient motion, and the settling velocity. If the bed shear velocity is greater than both the critical shear velocity for incipient motion and the settling velocity, particles are entrained into the water column and transported as suspended load. The maximum volume of particles entrained in the water column is based on the carrying capacity of the flow. If the bed shear velocity is greater than the critical shear velocity for incipient motion, but less than the settling velocity, particles are transported as bed load. If the bed material is heterogeneous, then the finer particle fractions are likely to be entrained first, leaving behind a surface layer of coarser particles that are less susceptible to entrainment. The coarser particle surface layer can also create an "armoring" effect, where some of the fine grained material is hidden from

exposure to the flow. Both these mechanisms would result in armoring of the bed and entrainment would be inhibited. Armored parts of the bed can be disrupted during high flows.

When there are wind-waves, it is necessary to account for the shear stress caused by wave-current interaction, which is a function of the bottom orbital amplitude and bottom orbital currents, both of which are dependent upon the wave climate. Including the effect of waves is necessary, because the bottom shear stresses are an order of magnitude greater than stresses caused by currents alone.

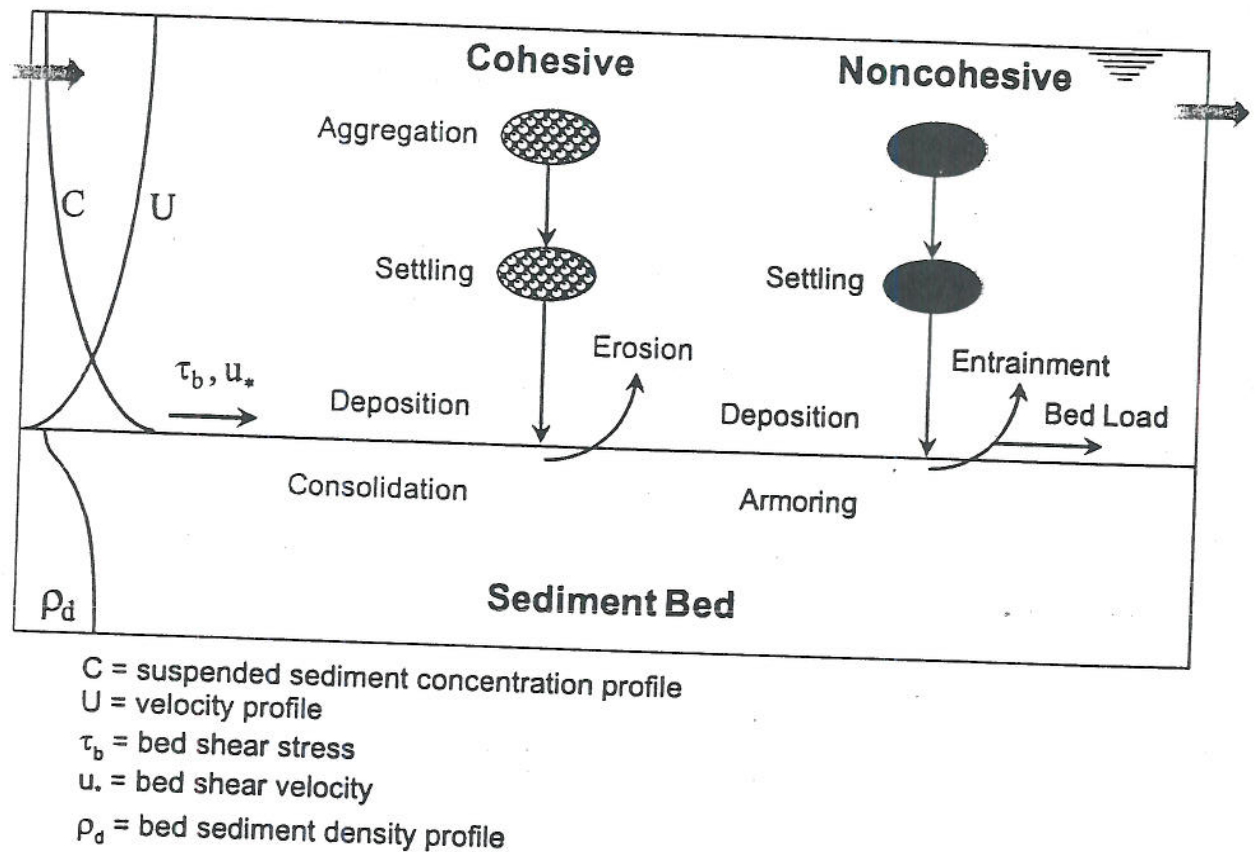


Figure A-1. Schematic of the processes influencing sediment transport



TOWN OF LITCHFIELD

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*Received 8/16/2013
NST*

1 August 2013

Newton Tedder
US EPA—Region 1
5 Post Office Square—Suite 100
Mail Code—OEP06-4
Boston, MA 02109-3912

Re: 2013 NH Small MS4 Draft General Permit

Dear Mr. Tedder:

On behalf of the Town of Litchfield, I offer the following comments on the proposed 2013 Draft MS4 NPDES Permit. Over the past several months, I have endeavored to review and consider the implications of this permit, an exercise that is somewhat challenging serving in a small organization without engineering staff.

Since the issuance of the last permit, nearly ten years ago, the Town of Litchfield has undertaken significant steps to manage stormwater in a rural residential setting. We have taken steps over the past few years that have improved water quality townwide, despite having only a fraction of the town covered by the original permit (and only slightly more of the town projected to be covered by this permit.)

The issue of scale is the first area of concern. The determination of those communities included and excluded is inconsistent with the broader goals of water quality protection and improvement. Litchfield is a small community nestled between much larger communities and has retained a rural character, where our neighbors have not. To that end, there is extremely limited commercial development in town, and the majority of that is outside of the permit area. Our major municipal facilities including Town Hall, Police Station, Highway Department and Solid Waste Facility are outside of the permit area. The agricultural district along the Merrimack River is also excluded. What this leaves in the permit area are single family residential neighborhoods with small localized stormwater systems. There is no sanitary sewer system within Litchfield. Specifically, as a previously permitted community, the lack of a meaningful opportunity to request a waiver is a challenge. Ideally, the ability to request a waiver would include benchmarks for levels of impervious coverage and housing density rather than a blanket census designation.

We also request clearly stated flexibility regarding implementation and timing. It appears, that this permit is heavily front loaded with requirements in the first few years of the permit. Section 2.2.2

appears to classify all non-compliant discharges as requiring immediate remediation. This timeframe is not practical. It will require additional time to prioritize, plan, fund and construct necessary BMPs. It would be more constructive and realistic to allow the Town to work with NHDES during the first three years of the permit to mutually determine the highest priority waters to address first. Additionally, this will allow us time to identify appropriate funding sources which will likely need Town Meeting authorization; this opportunity is usually one time annually.

In addition to requiring additional time to prioritize and fund, a smaller community, such as Litchfield, will likely need to rely on collaboration with our neighbors, either through a regional stormwater coalition or a Regional Planning Commission, in order to effectively and efficiently comply with the various requirements of the permit. It would be more reasonable and for regional groups to share testing equipment and technical support, rather than for each town to independently obtain materials and services. Further, a regional approach that imposes less financial burden on each Town separately, would allow greater and faster progress on achieving the overall goal of cleaner water. We would request that a reasonable window of twelve to eighteen months be provided for establishment of such collaboration mechanisms which may require inter-municipal agreements.

Section 2.1.1.c establishes the requirement to remedy any conditions causing an exceedance of water quality standards within 60 days of a determination that our discharge is causing an exceedance. The section specifically spells out that the compliance clock begins immediately and continues until the source is remedied and that there is not a grace period. This, coupled with the fact that we have to conduct dry weather sampling of all of our outfalls at the same time, will put the Town into almost immediate non-compliance. To help deter the stringent requirements of the water quality exceedance, the Town is asking for time to evaluate the water quality data that NHDES has used to determine the 303 (d) list. Within the first 3 years of the permit we could prioritize our outfalls based on the use of the receiving water value (as determined by NHDES) and risk to the public. Then, a targeted sampling program of those high value/high priority water bodies can inform plans to remedy any sources of contaminants specifically from our MS4. Section 2.1.2 prohibits any new or increased discharges (including pollutant loadings). Does this mean that the Town needs to notify NHDES every time we issue a driveway permit or add a catch basin to our drainage system? Do we also have to provide a waste load analysis for every driveway? This provision seems administratively burdensome and the Town doubts that NHDES has the resources to respond to such a requirement.

Overall, the Town wishes to support and enhance clean water and to mitigate wherever possible those areas where stormwater impacts it. We are concerned, as a small town with limited staff and budget, that a rigid program of standards applying to all towns and cities in the permit area, without acknowledgement of size, capacity and available funding, will pose an unreasonable hardship on our property taxpayers. More importantly, the cost of regulatory compliance will likely compel us to devote scarce resources to the filing of paperwork rather than making meaningful changes on the ground in the community.

We appreciate the opportunity to offer comment and hope that these comments and the comments of our similarly situated colleagues can generate a revised permit which supports environmental improvement with a responsible and reasonable of scarce local resources.

Sincerely,

A handwritten signature in dark ink, appearing to be 'JH' with a stylized flourish extending to the right.

Jason Hoch
Town Administrator

received 8/7/13

Town of Milford

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July 31, 2013

Newton Tedder
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Boston, MA 02109-3912.

Subject: 2013 MS4 Permit – Town of Milford – Comments

Dear Mr. Tedder:

Thank you for providing the Town of Milford with the opportunity to comment on the subject draft permit. The Town shares EPA's commitment to the protection of our natural resources and appreciates the effort that has been expended by EPA's staff for this purpose.

Our comments involve two major areas: scheduling and Water Quality technical requirements.

Timing:

We understand the logical approach EPA has put forward regarding the timing of implementation efforts. While many of the envisioned efforts are already underway in Milford, it will be difficult for us to meet schedules as proposed. Some of the areas we foresee as being difficult are:

1. NOI (1.1.7.2d) - The NOI filing anticipates a significant amount of detail regarding future BMP's and other implementable activities. These will likely be the basis for future evaluation of our program. To develop this plan, it is necessary to evaluate many additional aspects of water quality that are being introduced elsewhere through the draft permit. Since the NOI is required within 90 days of the start date of the permit, and since this start date and other permit requirements are unknown, it is difficult to assess the staff effort as well as the availability of consultant time, if required. We believe this date should be extended to 180 days.

2. Catchment Area Ranking and Investigations (2.3.4.9) - The permit requires the completion of the outfall inventory within one year of the permit date. However, identification of outfalls does not define catchment areas. Significant additional data is required to accomplish this. Until catchments are defined, rankings cannot be meaningfully completed. Further, evaluation and investigation of the catchments requires the understanding of interconnections, flow constraints and flow directions. In order to evaluate catchment areas, Milford will need an even better understanding of its more than 30 miles of storm sewers. Work to accomplish this is underway as part of a 6 year data gathering effort (planned completion during 2019) in which 200,000 linear feet of storm sewer, 1600 catch basins, and hundreds of drain manholes are being better defined through video and survey methods. Interconnections cannot be understood until this is completed.

Once the system is understood, investigations can be effectively conducted. While we agree that the proposed 10 year investigation time frame would be ideal, the time and effort involved in obtaining sufficient information to carry-out this program will likely add approximately 5 years to the proposed schedule. We request that the time frames related to this effort be increased as follows: Allow 5 years from permit inception for the completion of the ranking process and 15 years from permit inception for the completion of the investigations following the prioritizations identified in the present permit draft.

3. Review of Ordinances (2.3.6.6) – The staff, administrative, and public participation efforts anticipated are significant. The timing of reviews by independent boards, such as the Planning Board, is subject to existing workloads and scheduling. Further, given the possible need for Town Meeting action on proposed changes, the proposed two-year time frame may not be sufficient, especially if the finalization of the permit occurs at a time not in concert with legislatively defined schedules. We therefore recommend that these time frames be increased by at least 180 days.

Water Quality/ Bacteria TMDL (2.2):

Additional detail and effort anticipated by the draft permit is largely due to the incorporation of TMDL's into the permit. Currently, it is proposed that Milford is to be held subject to the bacteria TMDL. We object to this on several technical grounds.

We understand that the NPDES permit process is not the source for the TMDL for bacteria. However, expecting the town to expend significant effort and dollars based upon the bacteria TMDL as it currently has been formulated and exists is inappropriate. It is well understood that this TMDL, at least as it relates to the Souhegan River in Milford, is based upon limited and outdated data obtained by a much appreciated lay-monitoring group whose work has not been quality controlled for this purpose. While we commend the group for its efforts and appreciate the work of the individual volunteers, we note that the group has not worked with the DES Volunteer River Assessment Program (VRAP) for training and QA/QC certification. The level of data thus obtained does not rise to the scientific levels typically required by EPA. Further, the application of the TMDL fails to consider the tenants of Water Quality Standards incorporated with the Clean Water Act and New Hampshire statute which emphasize "naturally occurring conditions" as being beyond the reach of regulation. 40 CFR 130.2(j) defines a TMDL as the sum of the waste load allocation (WLA), the load allocation (LA), and a margin of safety

(MOS). This requires that major sources, including natural sources, are understood and incorporated into the TMDL. A quick modeling of the Souhegan River reveals that the water quality criterion for bacteria is not met during low flow or 7Q10 and greater flow conditions due to inputs from natural sources, such as birds and other resident wildlife. Further, other unregulated watershed sources, such as agriculture and privately owned commercial and industrial outfalls, contribute bacteria. The watershed includes several agricultural operations with hundreds of acres of managed land with likely contributions that are not incorporated into the conceptual model being applied. It is known that agricultural operations within Milford as well as in upstream communities commonly apply manure to cultivated soils as normal agricultural activity. Yet this is a largely unregulated activity. The data used in the development of the TMDL, further, does not support stormwater as being the unique source of bacteria in that most in-stream samples are obtained during lower flow conditions and often without precursor rainfalls occurring within 24 to 48 hours of the sampling. The permit is silent on the means of implementing controls or expending resources based upon naturally occurring watershed sources or sources that are not regulated. In fact, the water quality standard for bacteria is not applicable as a result of naturally occurring sources (NHRSA 485-A:8 –II. “Class B waters shall be of the second highest quality and shall have no objectionable physical characteristics, shall contain a dissolved oxygen content of at least 75 percent of saturation, and shall contain not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 126 *Escherichia coli* per 100 milliliters, or greater than 406 *Escherichia coli* per 100 milliliters in any one sample; and for designated beach areas shall contain not more than a geometric mean based on at least 3 samples obtained over a 60-day period of 47 *Escherichia coli* per 100 milliliters, or 88 *Escherichia coli* per 100 milliliters in any one sample; **unless naturally occurring**” (emphasis added)). In concept, DES has addressed naturally occurring bacteria as part of the TMDL “MOS”. However, given the current NH statute and water quality standards, naturally occurring bacteria are exempted from determination of attainment of water quality standards. Given the broad occurrence of naturally occurring bacteria, a generalized MOS is not sufficient for establishment of a TMDL requiring a percentage reduction of bacteria. This is a critical flaw.

Since there is little or no specific data regarding watershed sources of bacteria, NHDES and EPA have elected to develop a TMDL based upon raw sampling data and Water Quality Standards. While undefined as to how to implement the necessary controls, EPA and NHDES have elected to incorporate the equivalent of the “Percent Reduction Method”. However, the percent reduction method is based upon the assumption that there is a 1:1 relationship between the reduction in pollution loading from the source and the resulting water column water quality. This is not the case for bacteria which cannot be modeled as a conservative pollutant. Bacteria have a natural die-off rate which must be recognized in a loading assessment. In-stream sampling and assessment attempts to address this issue. However, communities are expected to incur significant costs based upon this approximation which provides minimal control guidance. This represents a flaw in applying the percent reduction methodology.

Another requirement of the application of the “Percent Reduction” approach is that sources must be identified so that there is knowledge as to the practical effectiveness of the TMDL. Reasonable and practicable controls cannot be defined without respect for all significant sources with due consideration to naturally occurring contributions, unregulated sources, and watershed inputs that are outside of

corporate boundaries of the town. The TMDL for bacteria, therefore, presents unattainable goals which potentially place the Town of Milford in immediate violation of the proposed permit, and the permit does not provide a shield from enforcement.

Again, we appreciate the difficulty of addressing bacteria TMDL's and the limited quantity and quality of data that DES had at its disposal during the development of the TMDL. However, the TMDL presented for bacteria has the following flaws:

- 1) It fails to meet EPA's TMDL definitions (40 CFR 130.2(i)) and requirements by not adequately assessing WLA, LA, and MOS;
- 2) It is not based upon adequate data;
- 3) It does not recognize "naturally occurring" sources or non-regulated watershed sources;
- 4) It treats bacteria as a conservative pollutant thereby ignoring die-off;
- 5) It does not define watershed inputs that initiate from outside of Milford's corporate bounds;
- 6) It establishes specific percent reduction goals for stormwater management that are not sufficiently defined or supported to allow planning and implementation of successful management strategies. Basic BMP implementation may not be sufficient to attain in-stream standards and the identification of these as "minimum" leaves open the possibility for the requirement of extreme and expensive measures and enforcement actions.

We understand EPA's need to issue NPDES permits with emphasis on assuring that discharges do not result in further degradation of non-attainment segments. Since this presumes an accurate understanding of in-situ water quality, we believe that implementing water quality based permits is not reasonable until the water quality is sufficiently understood. Clean Water Act 303(b) Reports to Congress have presented estimates of non-attainment water bodies since the 1970's. Most of these have been based upon the best judgments of state water quality staff. To the extent that this has been a traditional approach, there has been little or no input into the process by the public. Without appropriate public input the value of the 303(d) lists are limited. While useful as planning tools, without sufficient technical basis, these reports and the 303(d) lists may not rise to the level required for implementation of costly regulations. The limited data along with quality questions furthers the practice of using available information for assessing the Souhegan River that is not substantially different than the "best judgment" or best guess approach. It is EPA's and DES's responsibility to obtain the needed water quality information. Insufficient funding of these agencies does not translate into the requirement for the regulated permittees to expend funds without sufficient basis.

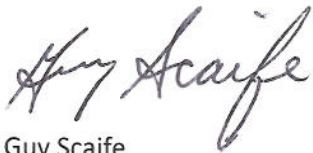
We therefore request that references to the bacteria TMDL be removed from the permit until the above TMDL issues are resolved.

NHDES is currently finalizing its 2012 -303(d) list. This process could allow many of the above issues to be further explored and possibly resolved. However, the comment period on the 2012 list has expired

and DES will be finalizing the list without the benefit of further comments. Accordingly, Milford requests that EPA not approve the list until these issues are resolved. EPA has 30 days to reject the list once it is submitted by DES during which time EPA should remand the list to DES for reconsideration and DES should reopen the comment period upon its reconsideration and revision of the list. Whether this suggestion is followed or not, EPA should not issue the permit with specific TMDL's incorporated until the TMDL's are properly established - even if this means that the TMDL for the Souhegan River in Milford is not incorporated in the MS4 permit until the next permitting cycle.

Thank you again for your considerations and feel free to contact Fred Elkind or me for clarifications.

Respectfully,

A handwritten signature in dark ink, appearing to read "Guy Scaife". The signature is fluid and cursive, with the first name "Guy" and last name "Scaife" clearly distinguishable.

Guy Scaife

Town Administrator

cc. Fred Elkind, Environmental Coordinator

STEPHEN R. FOURNIER
TOWN ADMINISTRATOR

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FOUNDED DECEMBER 15, 1727
CHARTERED JANUARY 1, 1991

TOWN OF NEWMARKET, NEW HAMPSHIRE
OFFICE of the TOWN ADMINISTRATOR

Received 9/15/2013

August 6, 2013

Mr. Newton Tedder
Office of Ecosystem Protection
Environmental Protection Agency
5 Post Office Square—Suite 100
Boston, MA 02109-3912

RE: Town of Newmarket's Comments on EPA's DRAFT Small MS4 Stormwater Permit for New Hampshire

Dear Mr. Tedder,

We appreciate this opportunity to comment on EPA's DRAFT Small MS4 Stormwater Permit that was published in the Federal Register on February 12, 2013. In the past, EPA has granted the Town of Newmarket ("Town") a waiver that exempted the Town from having to comply with the 2003 MS4 Permit requirements, presumably due to the Town's relatively small-urbanized area. It is our understanding that now due to revised "urbanized area" limits based on 2010 Census data, the Town would, for the first time, be subject to the full provisions of the proposed 2013 MS4 Stormwater Permit. The added costs to comply with another regulatory program will result in an onerous and undue financial burden for our taxpayers when considering the \$14 million the Town has recently agreed to spend to upgrade its wastewater treatment plant to meet EPA's more stringent nitrogen effluent limits.

In addition, this potential status change of now being required to comply with this stormwater permit program is not commensurate with any meaningful change in our Town's land cover or infrastructure that would suggest our relative risk to contribute stormwater related pollutants has increased. Despite a marginal increase in population in the last decade according to the Census Bureau, our Town's population density and amount of impervious area, particularly in our identified small "urbanized area", has changed very little over the last 10 to 15 years. In fact, when accounting for several recent steps to reduce our pollutant load to the Great Bay, including the pending WWTF upgrade and the adoption of new stormwater management requirements as part of our Subdivision and Site Plan regulations, we believe our potential pollution contribution has only decreased compared to previous years. We are one of few towns in the Seacoast Region that have adopted these more stringent regulations.

We share in EPA's goal of improving water quality as evidenced by the Town's recent steps to reduce its share of pollutant contributions. However, as discussed further below, we strongly believe that EPA's sole reliance on population data to designate areas subject to additional stormwater regulations leads to an imbalanced and inefficient use of limited resources as well as limits the potential for water quality benefits that could otherwise be achieved if higher priority areas were targeted based on relevant risk factors. These factors should include recent development patterns, extent of impervious area, land use types and whether the community has proposed or instituted recent pollutant reduction efforts. Much of the new impervious area created in our watershed in the last decade is outside of Newmarket's boundaries and is related to new commercial and industrial areas that are not reflected in the population data and not regulated under the MS4 program. Based on this trend, any potential gains that we may achieve while expending additional significant funds are likely to be negated by continued increased commercial development in unregulated areas in the upstream watershed. We suggest that EPA reevaluate and consider a significant overhaul of the MS4 Program to develop a more effective and balanced approach to addressing stormwater runoff from all developed areas. This would include requiring watershed-based planning and permit compliance.

Moreover, the NPDES Permit recently issued to the Town for its wastewater treatment plant already includes provisions for the Town to develop a plan and report progress on reducing pollutant contributions from nonpoint sources. These provisions in themselves require the Town to undertake significant effort and funds to initiate planning, analysis and implementation efforts to address nonpoint sources. Having to address multiple and overlapping permit requirements related to nonpoint source will only add to the financial burden.

As such, we request that EPA either to continue grant the Town of Newmarket a waiver and/or delay the effective date for at least three (3) years in which would have to fully comply with the proposed DRAFT 2013 MS4 Stormwater Permit Requirements. We believe we can make more efficient use of our limited financial and staff resources on are ongoing efforts and continued progress to adopt feasible and flexible measures to further improve water quality without having to be subject to the full provisions of the proposed DRAFT 2013 MS4 Stormwater Permit Requirements.

The following represents other specific comments that we have on certain sections of the permit.

Section 1.1 Areas of Coverage

As stated above, we believe that EPA's sole reliance on Census Bureau data to identify "urbanized areas" that are subject to the provisions of the MS4 Stormwater Permit ***is arbitrary and capricious*** resulting in inefficient use of limited staff and financial resources. We believe that additional risk factors should be included in the determination of "eligible areas" in order to more effectively target areas that are likely to have greater potential impacts on water quality. These risk factors could include recent changes in impervious cover, development potential, extent of commercial and industrial areas and juxtaposition within the watershed. This would result in a more effective, and balanced regulatory program. EPA should also consider including incentive criteria to reward towns who have taken steps to proactively reduce their pollutant contributions and by offering a reduced set of compliance actions for proactive or lower "risk" communities. This would encourage more positive and perhaps widespread actions.

Section 1.10 Stormwater Management Program

In addition to the other timeline extensions afforded in Section 1.10.3 for “new permittees”, additional time of at least two years should be allowed to develop the first written Stormwater Management Plan. Given the number and extent of the major plan components that are required, new permittees will need additional time to complete the analysis and system assessments required to address the various SWMP components. Additional time is also needed to allow for the time needed to conduct the inter-departmental coordination and communications to establish new roles, responsibilities and protocols to include in the various components of a SWMP.

Section 2.1.1 Water Quality Based Effluent Limitations

The language in Part 2.1.1 (c) suggests that communities would be considered in violation and could be faced with subsequent enforcement actions for “Any discharge that is contributing to an exceedance of applicable water quality standards violates Part 2.1.1 (a) of this permit and remains in violation until eliminated. “ “the permittee shall within 60 days of becoming aware of the situation eliminate the conditions causing the exceedance....”

On face value this suggests that any stormwater discharge to an impaired water body (presumably with a known water quality standard exceedance) would be considered an immediate permit violation. This appears to inconsistent with the provisions of Part 2.2.2(a)(1), which allows the permittee one year to evaluate its discharges to impaired waters in order to (1) “assess whether MS4 discharges are potential contributors to the identified impairment” and (2) “identify sources of pollutant(s) of concern in the MS4 area draining to the impaired waters.” We suggest that this section be clarified in terms what discharges may be considered in violation and the timelines to rectify known violations or impairments.

2.2.2 Discharges to Impaired Water Bodies without an Approved TMDL

Part 2.2.2.a.ii.3 indicates that all planned BMPs identified as part of a Water Quality Response Plan “shall be fully implemented within three (3) years of the permit effective date unless the permittee can document that such implementation is infeasible”. This expected timeline for BMP implementation is unreasonable and infeasible. Again, permittees should be allowed at minimum of 10 years to fully implement BMPs.

2.2.3 Great Bay Watershed Nitrogen Requirements

Appendix H: The information on BMPs provided in Appendix H focus on structural BMPs only. Additional information and guidance is needed for various non-structural measures for nitrogen control including allowable N removal credits, similar to the information included for phosphorus in Appendix F.

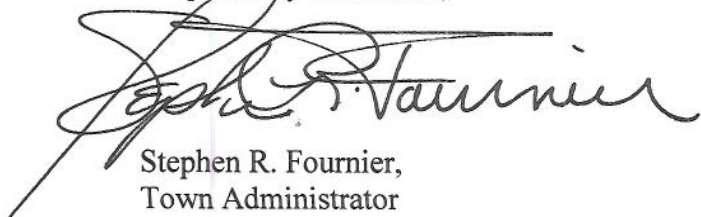
Part 2.3.7, the additional twice a year street sweeping required for Good Housekeeping and Pollution Prevention included in Appendix H should not be mandated. Given the marginal reduction benefits (assuming similar reduction efficiencies as those specified for phosphorus included in Table 2-2 in Appendix F), permittees should be allowed the flexibility to explore alternative measures to accomplish equal or better load reductions for less cost. Street sweeping may not be the most cost-effective measure and appears to offer only marginal benefits. This would allow us to make better use of our limited funds on more effective measures as long as an equivalent or better load reduction can be achieved.

The same comment applies to the suggested pollutant removal credits for catch basin cleaning.

2.3 Requirements to Reduce Pollutants to the Maximum Extent Practicable (MEP)

As a general comment, completing the multitude of requirements included in this section in a 5-year permit cycle is not realistic. We suggest that the number of requirements be reduced substantially and be spread over two permit cycles or allow up to 10 years to complete the requirements of this section.

Respectively Submitted,

A handwritten signature in black ink, appearing to read "Stephen R. Fournier", is written over a horizontal line. The signature is fluid and cursive.

Stephen R. Fournier,
Town Administrator

cc: Sean Greig, Newmarket Water and Wastewater Superintendent
Rick Malasky, Newmarket Director of Public Works



TOWN OF SALEM, NEW HAMPSHIRE

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OFFICE OF THE TOWN MANAGER
Keith R. Hickey, Town Manager

*Received
8/15/2013*

August 13, 2013

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5 Post Office Square, Suite 100 (OEP06-4)
Boston, MA 02109-3912
ATTN: Newton Tedder

RE: Comments on the 2013 NH Small MS4 Draft General Permit

Dear Mr. Tedder:

On behalf of the Town of Salem, NH, please accept the following comments on the 2013 NH Small MS4 Draft General Permit issued on February 12, 2013. The Town would like to acknowledge its appreciation for the granting of time extensions to August 15, 2013, which provided opportunity to review the draft language contained in the permit and consider the ramifications.

Please note that the Town of Salem, NH is also part of a MS4 Coalition. Additional comments will be submitted to EPA on behalf of the Town from Sheehan, Phinney, Bass & Green, PA.

Section 1.7.2 – The Town of Salem, NH believes the 90 day time frame within which to submit the Notice of Intent to be overly burdensome for a small community. In the likely event that the engagement of a consulting firm is desired to assist the Town in preparing the NOI (Notice of Intent), a procurement process will be needed. Solicitation and evaluation of RFQ/RFP (Request for Qualifications/Proposals), selection of a consultant, and subsequent contract negotiation will occupy much of the proposed 90 days, leaving inadequate time for preparation of the NOI. As such, the Town requests that 180 days be provided from the effective date of the permit to submit the NOI.

Section 2.1.1.c – The Town of Salem, NH believes the 60 day time frame in which to eliminate a discharge that “causes or contributes to an exceedance of applicable water quality standards” is overly burdensome. In dealing with this requirement, it may take substantial time just to detect the source of the discharge, let alone eliminate it. In a municipal environment where communities are faced with budgeting for MS4 requirements on an annual basis based on speculation of what may or may not be encountered, the broader priorities (and budgetary limitations) of the MS4 may necessitate the diversion of resources to higher priority activities.

Further, the Town is concerned that the 60 day period is a ‘grace period’ and that preparation of a WQRP is not identified as any particular show of good faith by the Town. Rather, it is clearly indicated that anything short of an immediate removal of the discharge constitutes a violation of the permit, leaving the potential enforcement action a possibility. Essentially, the Town will be in non-compliance from the day the permit is issued.

The Town requests that the EPA recognize the fiscal and technical limitations of municipalities as it relates to elimination of discharges that cause or contribute to an exceedance, that the 60 day time frame be extended to 365 days to facilitate proper budgeting for identified problems, and that the preparation of a WQRP to deal with such a discharge is, in fact, a show of good faith effort by the Town/MS4.

Section 2.3.4.2.(b) and (c) - Similar concerns to those expressed above under Section 2.1.1.c are again expressed by the Town in relation to the time frame of eliminating an illicit discharge and being immediately in violation of the permit upon detection of the discharge. We would again propose 365 days to facilitate proper budgeting for identified problems, and that development of a reasonable schedule along with 'reasonable and prudent measures to minimize the discharge of pollutants' would constitute a good faith effort by the Town/MS4.

Section 2.2.2.c.(i) and (ii) – The Town of Salem, NH believes that time frames for the 'Reassessment of Implemented BMPs' and 'Prospective BMPs' is overly aggressive. After implementation of the initial set of BMPs the Town feels that a longer period of evaluation (that is, beyond permit year 4) should be provided to assess BMP effectiveness before proposing yet another group of BMPs (as proposed in permit year 5).

Further to the above, it is worth noting that the NHDES 2012 "Section 303d list" of "Threatened or Impaired Waters that Require a TMDL" shows all but one of Salem's impaired waters as a 'LOW TMDL Priority' (the exception being Hedgehog Pond with a 'MED TMDL Priority'). NHDES indicates that the earliest 'TMDL Schedule' for any of the indicated waters in Salem would be in 2019. With that said, Salem objects to the overly burdensome compliance schedule outlined in 2.2.2.c in light of the fact that the earliest TMDL study to be conducted by NHDES on any of the Town's listed impairments will not take place until after the 5 year term of the draft 2013 MS4 General Permit. The Town believes that consistency should be applied across all agencies in relation to impairment priorities. Confirmation of impairment utilizing analysis of current data from reliable sources should be undertaken prior to requiring MS4s to implement expensive mitigation measures. The Town should not be held to a higher performance standard than another agency that establishes impairment priorities.

Section 2.2.4 & Appendix H: Chlorides

- Discharge to chloride Impaired Waters, Municipally Maintained Surfaces – the reference documents in Appendix H provide good perspective on the issue of road salt use, however, they provide no specific guidance with respect to municipal obligations within the Town of Salem, NH. Designation of 'no salt' areas cannot provide for public safety in all circumstances, and level of use of de-icing products will vary depending upon weather conditions. If the EPA is suggesting reduction of road salt, the Town requests specific guidelines from EPA that provide appropriate winter maintenance techniques that can both insure public safety and accomplish salt reduction goals.
- Discharge to chloride Impaired Waters, Municipally Maintained Surfaces – the EPA should address the obligation of a municipality to provide safe roads to travel during winter conditions versus its obligations under an MS4 mandated salt reduction plan. Winter operations may, at times, contradict MS4 obligations, and public safety lies in the balance. The Town feels that it should not have to choose between public safety and compliance with their MS4 permit.


- Discharge to chloride Impaired Waters, Privately Maintained Facilities that drain to MS4 – Under the draft general permit, the Town is responsible for insuring that salt is not over utilized on private properties. Salem, NH has a broad base of commercial, retail, and industrial properties. At this point, it is not clearly defined how a Town mandate on private salt usage may manifest itself in issues such as slip and fall claims, insurance, and tort liability. The Town of Salem, NH believes that it should not be held in violation of its MS4 permit for private actions it cannot control directly, and cannot definitively quantify until after the fact (especially when such private actions are solely for the purpose of providing a safe walking/driving condition for customers and/or employees). Further, the Town suggests that the time frame for this aspect of the Salt Reduction Plan be delayed until the NH State Legislature can address the liabilities associated with salt application in response to winter conditions.

The Town of Salem, NH understands and respects the goals and objectives of the EPA in the development of the 2013 NH Small MS4 Draft General Permit. While we agree with working towards the improvement of water quality, we implore the EPA to appreciate the financial limitations of municipalities in the State. The proposed MS4 changes necessitate an unreasonably large, unplanned, and immediate financial burden on the taxpayers and residents of our community. Having the ability to more gradually phase these impacts into an already stretched operating budget over a longer period of time would help to ease the burden.

The Town of Salem, NH suggests that once the comment period has closed, that the EPA reach out to the MS4 communities in an effort to cooperatively develop the most efficient and effective methods to comply with the General Permit objectives. The Town encourages this effort to aid in building a better understanding between the EPA and local communities.

Thank you for the opportunity to provide these comments.

Sincerely,



Keith R. Hickey, Town Manager



Robert E. Puff, Jr., PE, Director of Engineering

Town of
Seabrook, New Hampshire

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March 14, 2013

Page 1 of 8

Mr. Newton Tedder, US EPA – Region
Five Post Office Square, Suite 100
Mail Code Po6-4, R
Boston, MA 02109-3912

Re: Comments/Protests to the 2013 Draft Small MS4 General Permit

Dear Mr. Tedder:

The Town of Seabrook is a small, predominately blue collar community (Pop. 8,693) along the Atlantic coast in southeastern New Hampshire. For the past nine years we have spent \$543,849 of taxpayer's dollars to meet your requirements in managing our stormwater. Now you come before us with even more stormwater requirements that have significantly more costs associated with them over the next five years. This while Concord, N.H. (Pop. 42,695), Keene, NH (Pop. 22,420), and Laconia, NH (Pop. 15,951) have been given waivers/exemptions from participating during the last nine years and also again during these Phase 2 new rules which encompasses the next 5 years. We conclude that no costs to these communities while little Seabrook has spent over half a million dollars is grossly unfair!

The following are Seabrook's protests, comments, and questions that we ask that you will address in the coming months:

1. Regulatory Flexibility Act (RFA), EPA Fact Sheet, Page 64 of 167, Paragraph E

Seabrook Comment: The Regulatory Flexibility Act deals with Congress' 1980 finding that Regulations cannot impose unnecessary and burdensome demands on small towns disproportionately. It requires the EPA to carefully consider the economic impacts their rules have on small towns defined as population less than 50,000. We believe that EPA has not met their responsibility to conform with the RFA.

- EPA has written their own "Guidance for EPA Rule Writers" concerning the RFA. They boldly state that this guidance document is not binding and can be changed at any time without public notice. EPA actions with regards to this issuance of these new regulations, gives the appearance to this small town that they believe they have the authority to interpret Congress' requirements, change Congress' interpretation at will, and neglect any complaint from the regulated communities.

- EPA has unilaterally determined “that since this general permit affects less than 100 small entities, it does not have a significant impact on a substantial number of small entities.” There is no mention of a minimum number of small entities in 1980 U.S. Congress Regulatory Flexibility Act (RFA).

Seabrook contends that the EPA regulations create unnecessary and burdensome demands. We must make the following argument that the RFA must be applied:

- a) We believe there is no legal basis for EPA’s minimum criteria of 100 small entities and contend that Congress’ intent was to protect even one small entity from disproportionate Federal demands.
- b) Small entities are defined “as the governments of a city, county, town, township, village, school district or special district” and also include small businesses. There are hundreds if not thousands of these small entities affected.
- c) Since this is a Federal Regulations, the small entity calculation should include towns and cities in other States where the NPDES Regulations also apply.

2. **Unfunded Mandate Report Act (UMRA)**, EPA Fact Sheet, Page 64 of 167, Paragraph F

Seabrook Comment: We are having difficulties comprehending the EPA’s interpretation of the Unfunded Mandate Report Act. This act requires Federal Government entities to provide funding for federal mandates or otherwise show that the funds that the entity needs to abide by the mandate are not excessive and will not be siphoned from other important municipal functions, thereby weakening those functions. Somehow the EPA finds that these stormwater regulations do not meet the definition of “regulatory actions” and are therefore not subject to the requirements of the UMRA. It is Seabrook’s position that the general permit requirements are unfunded mandates that are subject to the Act. Implementing these requirements has and will adversely impact other Town functions.

The Town of Seabrook disagrees with the EPA’s claim that the general NPDES permit is not subject to the requirements of both the U.S. Congress RFA and the UMRA. We demand that EPA perform the required flexibility analysis and provide funding for this unfunded mandate, or, delay the issuance of these rules so that EPA can work with Congress to change the Clean Water Act criterion that includes communities on the basis of whether they are located in an urbanized area or not, to one that is based primarily on the size of the community and affordability.

3. **Executive Order 12866**, EPA Fact Sheet, Page 64 of 167, Paragraph C

Seabrook Comment: Executive Order 12866 (President Clinton ’93) is an effort to create a regulatory system that is effective, consistent, and sensible without unreasonable cost on society. It applies to “significant regulatory action” that will adversely affect State and local communities in a material way. EPA has determined that this new storm water draft general permit is not a “significant regulatory action” and is therefore not subject to review under this Executive Order. There’s a pattern here. It seems that no matter what type of regulatory controls the Federal Government institutes to protect local communities, the EPA considers itself immune, and overturns the U.S. Congress Acts.

4. Federal MS4's Exemptions- General

Seabrook Comment: EPA has exempted Federal agencies from certain stormwater requirements. We assume that the EPA has, in good faith, determined that this is a beneficial policy for both the public and governmental entities. We agree. Please expand the exemptions to include State and local government entities.

5. Duty to Comply, Standard General Requirements, Appendix B, Pages 1-3 of 10

Seabrook Comment: The EPA has created a two and a half page list of punishments that we assume can be inflicted on us for any permit violation. The fines and incarceration penalties are **chilling** (see below).

Criminal Penalties

Negligent Violations – \$2,500 minimum to \$25,000 maximum **per day** of violation, or one year imprisonment (maximum), or both. Double the penalties for second offense.

Knowing Violations – \$5,000 minimum to \$50,000 maximum, or three years imprisonment (maximum), or both. Double the penalties for second offense.

Knowing Endangerment – \$250,000 maximum, or fifteen years imprisonment (maximum), or both.

False Statement -- \$10,000 maximum, or two years imprisonment (maximum), or both.

Civil Penalties – \$32,500 per day per each violation.

Administrative Penalties

Class I – \$11,000 per violation not to exceed \$32,500.

Class II – \$11,000 per violation not to exceed \$157,000.

The Town cannot imagine EPA would impose jail time or exorbitant fines on the townspeople and town workers in Seabrook. A stiff penalty by New Hampshire standards is \$500 a day. We have heard that the EPA believes that the stiff penalties will help ensure compliance. While that may be the case, we perceive that your penalties are an indication of a government bureaucracy run amok. We ask that you abolish the criminal penalties completely and reduce the Civil and Administrative penalties by a factor of ten.

6. Need to Halt or Reduce Activity Not a Defense, Standard General Requirements, Section B.3, Page 3 of 10

Seabrook Comment: In this section, EPA seems to be predetermining what will or will not be a legal defense of a violation. Doesn't the Judicial Branch of Government determine whether a legal defense is acceptable? If so, please delete this paragraph.

7. Duty to Mitigate, Standard General Requirements, Section B.4, Page 3 of 10

EPA: "You must take all reasonable steps to minimize or prevent any discharge...in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment."

Seabrook Comment: This one sentence gives us some insight into the thinking among the EPA rule writers. The regulation implies that our drainage system (catch basins, roadside swales, culverts, etc.) may be a threat to the health of our citizens. There is no evidence of that. None of our untreated sewage is polluting the drainageways. No one is drinking stormwater runoff. There are no outbreaks of waterborne illnesses. Most importantly, there is no reasonable likelihood of our stormwater adversely affecting the health of Seabrook citizens. If there was likelihood, Seabrook would have addressed it long before the EPA was created.

But health is not the only EPA criteria for this rule-making. The catch-all phrase “or the environment” has been inserted here. There is no winning this debate. In EPA’s mind, almost all human activity has a reasonable likelihood of adversely affecting the environment. Environmentalists scold us for driving cars and turning on the light. Carbon dioxide is created from our breath. Now, with this regulation, the environmentalists’ questionable beliefs are the Seabrook taxpayers problem—another non-debatable, unfunded mandate. Seabrook emphatically objects.

8. Proper Operation and Maintenance, Standard General Requirements, Section B.5, Page 3 of 10

EPA: “You must at all times properly operate and maintain all facilities...to achieve compliance with the conditions of this permit”.

Seabrook Comment: We resent EPA’s attitude towards our Town with the forceful “You must at all times...” along with the threat of imprisonment. Proper operation and maintenance of Town facilities is a high priority and constant goal. We cannot imagine improving our O &M by issuing edicts to our fellow Town employees. To err is human.

9. Reporting Requirements – 24 Hour Reporting, Appendix B, Section B.12.F.1, Page 7 of 10

EPA: “You must report any non-compliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances.”

Question: Is it really the EPA’s intent to be notified of all stormwater non-compliances within 24 hours? Please provide the EPA contact names and telephone numbers. Also, will someone be available to take calls from Friday afternoon to Monday morning?

10. Allowable Non-Storm water Discharges, General Permit, Section 1.4, Page 5&6 of 60

Seabrook Comment: Section 1.4 identifies 18 specific non-stormwater discharges that EPA will allow under this permit such as watering the lawn and washing the street. Our questions concern discharges that are not listed and thereby not allowed.

Question 1: The permit seems to allow homeowners to wash down their exterior siding on their home “without detergent” but allow the washing of their car with detergent. Are we correct in assuming that, other than car washing, one is not allowed to use soap or bleach or anything where the rinse water will come into contact with the ground?

Question 2: “De-chlorinated swimming pool discharges” are allowed. What are EPA’s recommended procedures for determining whether this water is sufficiently de-chlorinated? Is it anticipated that a Town employee or agent will need to verify the absence of chlorine before emptying the pool?

Question 3: “Water from crawl space pumps” is allowed. Crawl spaces in New Hampshire are rare. Cellars and basements are the norm. Is there a reason that basement sump pump discharges are not listed and possibly not allowed?

Question 4: “Individual resident car washing” is very specific in identifying the party allowed to wash a car. If a local school group wanted to have a car wash fund raiser, would they be required to obtain a Federal NPDES Permit?

Question 5: Is the spraying of pesticides or herbicides an allowable discharge? If not, what are the EPA’s requirements for the use of these products?

Question 6: Is the spreading of fertilizer, lime, or manure an EPA authorized activity? If not, what are the requirements?

Question 7: Are active farms exempt in any way from these stormwater regulations?

Question 8: Enforcement – How does the EPA expect communities to police non-allowable discharges? Should towns encourage neighbors to spy on neighbors? Will the EPA’s enforcement division be available to take calls from complainants?

11. Discharge to Chloride Impaired Water, General Permit, Section 2.2.4, Page 23 of 60, and Appendix H

The MS4 Draft General Permit includes requirements for communities that discharge to chloride impaired waters. It has come to the Town of Seabrook’s attention that Cains Brook-Noyes Pond is on the impairment list, which, according to the draft permit, requires the preparation of a Salt Reduction Plan (Appendix H, page 3), and possibly a Water Quality Response Plan (Page 19 of 60). The Town of Seabrook objects to these and all permit requirements pertaining to chloride impairment on the following grounds:

- The Cains Brook watershed encompasses land area that is located in both New Hampshire and Massachusetts, and therefore includes many more sources than just Seabrook, such as but not limited to: other municipalities, private entities, MassDOT and NHDOT. The waterway is the recipient of runoff that Seabrook cannot control; we are a very small percentage of the overall issue. It is unfair to saddle the downstream-most community with any chloride-control requirements. We object to risking the safety of our residents due to problems caused by others;
- The following NHDOT roadways and facilities are located in Seabrook: Route 95, rest area off Route 95, Route 1, Route 107, Route 286 and Route 1A. It is our position that these are the primary sources of the problem, not the few municipal roads located in the watershed. NHDOT must be made the sole entity responsible for addressing chloride impairment of Cains Brook-Noyes Pond.

12. Catchment Investigation, General Permit, Sections 2.3.4.8.c and 2.3.4.8.e., Pages 31 and 35 of 60, and Page 38 of 60, 2.3.4.9.c

EPA requires that catchments be ranked and prioritized and that a full investigation of every catchment be performed regardless of screening results. Catchments can be excluded only under provisions that are extremely restrictive, which in practice, would result in exempting very few areas. If prior screening results completed under the first permit term show that an outfall has no dry weather flow and no evidence of illicit activity, why perform needless upstream investigation? The Town of Seabrook objects to the provisions contained in the aforementioned sections. These might apply to highly urbanized areas with ancient sewer, storm drain or combined sewer systems, but not communities with new infrastructure. All of Seabrook's piping is modern (less than 20 to 25 years old) and completely separated. In our case, such catchment investigations would only be necessary in situations where outfall screening indicates the presence of contamination.

13. Wet Weather Investigation, General Permit, Section 2.3.4.8.e.ii.b, Page 36 of 60

EPA requires wet weather screening under certain conditions, including if one or more System Vulnerability Factors are present. The factors, as listed on Page 35 of 60, are written in such a way that makes it impossible for nearly any regulated entity to be exempt from wet weather sampling. For example, 'crossings of storm and sanitary sewer alignments'. How many communities with both types of systems do not have crossings of some sort? Why is this concern in a community that has new piping? Seabrook objects to wet weather screening on the grounds that the Town's systems are less than 20 to 25 years old and are constructed of modern materials such as polyvinyl chloride (with gaskets), reinforced concrete and precast concrete.

14. Construction Site Stormwater Runoff Control, General Permit, Section 2.3.5, Page 39 of 60

EPA will require municipalities to administer such controls at sites exceeding 1 acre. In spite of the claim made on Page 39 of 60 that EPA's program is separate and distinct, the requirements remain similar, if not duplicated. The Town of Seabrook objects to Section 2.3.5 on the basis that EPA already has a Construction General Permit (CGP) program that is substantially similar and the requirements contained in the MS4 NPDES General Permit appear to unfairly burden the Town with enforcement responsibilities.

15. Transfer Stations, Stormwater Pollution Prevention Plan, General Permit, Section 2.3.7.2, Page 46 of 60

EPA requires that a stormwater pollution prevention plan (SWPPP) be developed for the Town's Transfer Station. The Town of Seabrook's Transfer Station is already permitted under Sector N of the Multi-Sector General Permit (MSGP) program. Under this program, a SWPPP was prepared. It is inefficient and unnecessary for the Town to be regulated under two different programs for the same issues at one facility. The Town of Seabrook objects to the MS4 NPDES General Permit requirement on the basis that the Transfer Station is currently covered under the MSGP.

16. Wastewater Treatment Facilities, Stormwater Pollution Prevention Plan, General Permit, Section 2.3.7.2, Page 47 of 60

EPA also includes 'other waste handling facilities' in the SWPPP requirement. Please clarify whether this includes wastewater treatment plants. If so, similar to the Transfer Station issues described above, the Town's wastewater treatment facility is already permitted under the MSGP. The Town of Seabrook objects to unnecessary and redundant permitting under the MS4 NPDES program.

17. Fiscal Time Constraints in Issuance of Final MS4 General Permit

The EPA may be unaware of the process that Towns in New Hampshire follow in order to provide funding to comply with this EPA mandate. Here in Seabrook, the DPW will start to prepare their portion of the Town budget in mid July 2013. It will be submitted for review and adjustment to Town Hall in late summer and finalized in November. It will be published in the Town Report and sent before the voters in March 2014. Seabrook DPW has provided a partial list of activities that will need to be completed within the first year of 2013 MS4 General Permit:

- Update stormwater management plan
- Prepare NOI
- Determine impacts of water quality standards, outstanding resources and high quality water criteria
- Prepare water quality response plan
- Public education and outreach
- Develop outfall inventory
- Prepare written illicit discharge detection and elimination (IDDE) program
- Develop a written procedure for screening and sampling outfalls
- Initiate wet and dry weather sampling of outfalls
- Delineate outfall catchment areas and prioritize catchments for investigation
- Develop written procedures for site plan reviews
- Prepare written operations and maintenance manual for Good Housekeeping and Pollution Prevention measures
- Prepare inventory of facilities: parks and open space, building and facilities (i.e. schools, town offices, police and fire buildings, pools, garages, etc.), vehicles and equipment

Rough estimate: \$100,000 worth of work.

The costs for the first year of the program are substantial. Seabrook will not be able to shift monies around outside of budget cycles to fit this in. For the past several years, EPA has been unable to forecast a date for finalizing the MS4 regulations. Please be aware that the Final Permit must be in place by mid July 2013 in order to be funded at the March 2014 Town Meeting—any later will push the funding back to March 2015, making us unable to meet the first year requirements.

Conclusion

Based on the EPA's response to the 2008 Public Comments, Seabrook is not confident that our 2013 comments, protests, and questions will be sufficiently reviewed by EPA. Please prove us wrong by responding to each item in writing. You can trust that Seabrook personnel will be available to respond to your comments or questions. Please do not hesitate to contact me.

Respectfully submitted,



Joseph Titone
Interim Town Manager
Town of Seabrook, N.H.

cc: Board of Selectmen
Kelly O'Connor, Executive Secretary
Mr. Curtis Spalding, Regional Administrator, EPA Region 1
Stephen S. Perkins, US EPA
Kelly Ayotte, U.S. Senator
John M. Starkey, DPW Manager
Oliver Carter, Town Treasurer
Lilli Gilligan, Finance Manager
Sue Foote, Conservation Commission Chairwoman
Don Hawkins, Planning Board Chairman
Phil Maltais, Interim Superintendent, Wastewater Treatment Facility
Tom Campbell, Industrial Pre-treatment Manager, WWTF
Aboul Khan, NH House of Representatives
Amy Perkins, NH House of Representatives
Lawrence Perkins, NH House of Representatives
Jeff Andrews, NHDES
Lynn Willwerth, DPW Secretary
Judie Walker, DPW Secretary
Bruce Felch, DPW Foreman



Town of Wilton

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Received 8/15/2013

August 12, 2013

U.S. Environmental Protection Agency
5 Post Office Square – Suite 100
Mail Code-OEP06-4
Boston, MA. 02109-3912

Attn: Mr. Newton Tedder

RE: 2013 Draft MS4 NPDES Permit Comments

Dear Mr. Tedder,

On Behalf of the Town of Wilton please accept our comments regarding the 2013 Draft MS4 NPDES. Comments will also be submitted on the Town's behalf from Sheehan, Phinney, Bass & Green PA, as the Town is part of a MS4 Coalition. The granting of the two time extensions has been greatly appreciated so that we might better review and consider the ramifications of becoming a new MS4 Community under the 2013 NPDES permit.

The Town of Wilton has been named as a New Permittee under the 2013 Draft MS4 NPDES permit which brings with it significant mandated expenses. Every aspect of the NOI plan and testing brings an added expense to the Town. The Town of Wilton had applied for a waiver in April, 2013 but was denied in May, 2013 due to fact that 40CFR 122.32 or CFR 123.35(d) does not allow for interpretation of the amount of urbanization in Census. According to data provided by the 2010 Census there are greater than 1,000 but fewer than 10,000 within the Urbanized Area. Water Quality Standards (WQS) as required by 40 CFR 124.35(d)(2)(iv) have not been reviewed and verified to determine any potential exceedance.

The determination/distinction had not been made as to whether the Municipality is causing or contributing to any violation. There are sections within the regulated area that might be excluded once they are mapped. These areas don't contain any municipal buildings. Drainage consists of cross culverts under the roadway where there are natural swales, and there is land higher in elevation contributing to the drainage that doesn't fall within the jurisdictional area. The New Hampshire Department of Transportation (NHDOT) Highway system also bisects the urbanized areas from the impaired surface waters. Thus they are a major contributor to the degradation of the water quality especially for Chlorides. The Town has absolutely no control over the amounts and types of deicing materials that the NHDOT uses.

Additionally, since runoff and drainage occur within a watershed and not just within the jurisdictional boundaries of a Town it is difficult controlling the flows from neighboring communities, who could also be contributing to the overall water quality impairments. Water Quality Improvements need to be done on a watershed basis and beginning at the head waters of the basin not just along the way. Could the regulations be changed so that each watershed be

assessed and all stakeholders within that system contribute a fair and equal share all along the way instead of forcing individual communities to assume full implementation and financial responsibility? This way each watershed could be assessed, prioritized and plans developed solving all of the issues along the entire way and not burdening just a few. If clean water is the final goal then this would seem to be a better approach. Prioritize watersheds first then achieve clean water right from the headwaters.

The Town of Wilton has a total population of only 3,677 people of which 1,197 is within the Regulated EPA area according to the 2010 Census. This is compared with the neighboring Town of Milford which has a total population of 15,115 of which 12,193 people are within the Regulated area. Wilton has only about one quarter the total population and one tenth the number of people within the regulation area that the Town of Milford has. The cost of maintaining the General Government between the two Towns is similar with The Town of Wilton having an appropriation of 4.2 million dollars compared to the Town of Milford's of 15.5 million dollars or about 27%. In order to comply with the 2013 Draft the Town of Wilton will need to increase the operating budget in the order of \$750,000 to \$1,000,00 over the next 5 years. This equates to roughly \$200,000 per year which is about a 5% increase in the operating budget; that is cost prohibitive.

This permit is an unfunded mandate as defined in Article 28-a of the State's Constitution, Bill of Rights, adopted on November 28, 1984 states, *"The State shall not mandate or assign any new expanded or modified programs or responsibilities by the political subdivision unless such programs or responsibilities are fully funded by the state or unless such programs or responsibilities are approved for funding by a vote of the local legislative body of the political subdivision."*

Sewer and water are specifically included in Section 541-A:25 Unfunded State Mandates II of the Administrative Procedures Act State. *Such programs also include, but are not limited to, functions such as police, fire and rescue, roads and bridges, solid waste, sewer and water, and construction and maintenance of buildings and other municipal facilities or other facilities or functions undertaken by a political subdivision."*

The 2013 Draft Permit will require the Town of Wilton to quickly come up to speed with the permit even though most of the Towns have been involved since 2003 thus putting a further financial burden on the already strapped, limited, Town finances. Under section 1.10.3 New Permittees are given some additional time extensions however upon closer review most the 6 control items only add an additional year to the time limits while still bringing the Town into total compliance with all of the other Towns who have been in the program for 10 or more years. The various extensions are as follows:

1. Public Education requirements in Part 2.3.2.1.b shall be extended one year; however this does not eliminate the need to have 2 messages to each of the four audiences for a total of 8 within the permit period. This only allows for the messages to begin in the second year but still requires the same number of messages within the same time frame. Reducing the total messages to each group to one or having a total of 4 for the permit period would be better in reducing the burden versus only extending the time by a year.
2. Outfall Inventory under Part 2.3.4.7 shall be completed within 2 years of the permit effective date. This section requires not only an inventory of the outfall but also the interconnection discharging from within the MS4. The timeframe required for a previously designated MS4 Town is one year from the permit effective

date, thereby only giving the new Towns only one extra year putting the burden within the second year. Wouldn't it be more prudent to have this done concurrently with the Outfall Mapping, extending the time frame to within 5 years of the effective date?

3. The Outfall Mapping under Part 2.3.4.6 shall be completed within 4 years of the permit effective date. The best available mapping shall be included with its SWMP until the new mapping is completed. Again the existing communities have to have this provided within a 2 year time frame so this gives any new Town only an additional 2 years but it still must be completed within 4 years of the permit effective date. This is an expensive part of this program for each Town and providing an extra year stating that the Outfall Mapping must be done within 5 years of the permit effective date would be more productive for the New Permittees.
4. All other IDDE Program timelines such as program development, monitoring and IDDE Program Implementation Goals and Milestones under Part 2.3.4 shall be extended by 2 years. Under Part 2.3.4.2 Elimination of Illicit Discharges shall be eliminated within 30 days. If the 2 years were to apply to this section then the time frame also falls within the second year. Section 2.3.4.6 allows the existing MS4 Towns 2 years from the effective date of the permit plus the additional 2 year extension allowed will put the effective date of mapping within 4 years of the permit effective date.

Under Part 2.3.4.8 Illicit Discharge Detection and Elimination Program the plan must be set up within one year or within 3 years for those new Permittees. This plan will provide the Permittee with adequate legal authority, it will identify IDDE Program Responsibilities, Assess and Prioritize rankings of Catchments into different categories and rank each on screening factors and update the plan yearly. This plan also requires Outfall and Interconnection Screening and Sampling to be done during various times of the year and must be setup within 3 years of obtaining the permit even though the mapping won't have to be done until within 4 years. It would be more beneficial to allow time to inventory the system and to coincide this with the prioritizing of Outfall Inventory and Outfall Mapping.

This section also continues on with sections 2.3.4.9 IDDE Program Implementation Goals and Milestones and 2.3.4.10 Indicators of IDDE Program Progress along with 2.3.4.11 employee training requirements. All of the parts under 2.3.4 are extremely comprehensive and will take a lot of time, planning, implementing all of which will require funding resources.

5. The ordinances, by-laws or other regulatory mechanisms required by Parts 2.3.4, 2.3.5 and 2.3.6 shall be completed as soon as possible but no later than 3 years from the effective date of the permit. Presently the Town of Wilton has Construction Site Stormwater Regulations in place; however, these along with all of the other required ordinances and regulations will have to be updated and put into place. This takes time since each one of these has to be prepared and placed before the voters, who ultimately make the decision. If they were to turn any one of these down then it would take another whole year before anything could be passed.
6. Part 2.2.2 Discharge to an Impaired Water without an Approved TMDL has a 2 year extension for a new permittee. Therefore Phase I shall be completed within 3 years, Phase 2 shall be within 5 years and Phase 3

shall be done within 7 years from the effective date of the permit. This extension doesn't apply to Parts 2.1.1.c or 2.2.2.c.i which shall be completed within the first 3 years after the effective date of the permit.

The timeframe for Part 2.2.2 doesn't seem practical for the far reaching extent of the water quality issues in southern NH. This permit appears to lead toward an immediate non-compliance issue. Time needs to be given to study, sample and determine what TMDL needs to be considered. Then plan, permit, prioritize, fund and construct many of the structural BMP's which will ultimately be required. The Town of Wilton has many outfalls along the Souhegan River to deal with. Addressing all of them at once would not be financially feasible. Much of the water quality data at this point is dated and in some cases there is insufficient data. The sampling techniques along with time of year and weather conditions during sampling are unknown and can greatly affect the testing results. Considering that this program will cost the Town Wilton at least many hundreds of thousands of dollars if not over a million in the next 5 years it would be prudent to make sure that there all of the data is current and correct prior to putting time, money and efforts into something that might not even exist at this time. Could a partnership be set up with NHDES to make sure all testing was done by specific regulated standards allowing for a better data set?

General Comments and Requests:

If the TMDL data was to be verified and prioritized within the first five years it would help to ensure that our limited funds are used appropriately in the most cost effective manner to achieve the successful mitigation measures that are being requested. After the first five years, once a priority list has been established then the highest prioritized outlet can be dealt with first, then subsequent outfalls could be addressed in the years following without driving the Town into financial ruin. Even with the extension to 7 years from the effective date of the permit, the Town of Wilton still has to come into compliance with all of other aspects of the law which doesn't seem practical.

It would appear from laying out this time line, that as a first time permittee, the Town of Wilton will need to catch up to and be on the same footing as all of the other much larger Towns by the end of the permitting process in 5 years. We will be required to File the NOI, create the Stormwater Management Program (SWMP), document Endangered Species, and Historic properties, broaden Public Education and Outreach, List all discharges, map the entire separate Storm Sewer System all the way back to the Town maintained buildings, create Water Quality Response Plans (WQRP), achieve compliance and create an Illicit Discharge Detection and Elimination Program (IDDE) to name just a few. We will then have to meet Water Quality Standards, under Phase 1 to Evaluate and identify MS4 discharges and under Phase 2 to Implement BMP's with the finalized source identified and assessed. It appears that for the first time permittee the final phase of the WQRP, plans to assess the implemented BMP's can come after the first 5 years of the effective date of the plan.

The Town of Wilton is a small rural community that would appreciate having a greater time extension to be able to come into compliance with the Clean Water Act. Even with the time extensions allowed under Part 1.10.3, the Town will be brought up to date with all of the other communities within the 5 year time constraint. Please compare this with the fact that the larger Towns have had 10 years to get all of the base information into place and we are starting from ground zero. Not only will we be dealing with the new 2013 regulations but the Town will be required to develop and implement all of the previous plans required of the larger Towns.

We all agree that we want clean water, we need clean water and it is of the utmost importance. How can we achieve a balance between our responsibility to clean the water and our financial situation? One solution might be to grant a realistic time frame to implement and then to track the progress of the BMPs. Five years is too short a time frame to be able to make the important determinations that are now being asked of us. Please allow us to fully evaluate the system properly, identifying the high target areas, implementing a realistic plan and then allow us ample time to determine if the BMP is working before we declare that we need to do more. We will do our part as required, however if the requirements can be spread out over a longer period of time such as focusing on data verification for the first five years and then implementing and testing for the next 15 years for a total of 20 years then we can all achieve our common goal of clean water while spreading costs out over a greater period of time.

Adding the cost of hundreds of thousands of dollars to a small rural community operating budget that is already stretched thin, struggling to keep our operating costs down to the bare bones while trying to deal with an aging infrastructure will be more than our population and our wallets can handle. Our population has already seen a decline due to the present economy; to continue on this path will mean the loss of even more people due to the ever rising property tax. If the Town, NHDES and the EPA were to work together to modify the regulations, we could then work towards compliance in a practical, realistic and cost effective manner. It has taken generations to impair the waters of the State, how can we be expected to clean it all in 5 short years with limited resources?

Sincerely, 
Daniel E. Donovan III, Chairman, Board of Selectmen

Copy: Vicki Quiram, Assistant Commissioner, NHDES
Jeff Andrews, NHDES